

The future of interactive entertainment ®

EDGE

PlayStation ▪ Saturn ▪ Nintendo 64 ▪ PC ▪ M2 ▪ Arcade ▪ Net ▪ Multimedia



LIFE BEYOND TUROK

THE EVOLUTION OF ACCLAIM STUDIOS

Acclaim may have received a poor reception from more discerning game players over the years, but its reputation is finally on the mend. Acclaim Studios opens its doors to **Edge** on page 70. (This image was created for **Edge** by Matt Stubbington at Iguana Entertainment, USA)

Issue forty-seven
Future
July
47



E D G E



Exclusively with E47: a PC/Mac-compatible CD-ROM showcasing the biggest games in development for the PC, N64, PlayStation, Saturn and arcade...

Prescreen

Castlevania 3D (N64)
Goemon 5 (N64)
Multi-Racing Championship (N64)
Earthworm Jim 3D (3Dfx/N64)
The Curse of Monkey Island (PC)
Jedi Knight (PC)
BladeRunner (PC)
Lands of Lore (PC)
Joint Strike Fighter (PC)
Broken Sword 2 (PC)
Dreams (PC)
Last Bronx (Saturn)
Sonic Jam (Saturn)
Metal Gear Solid (PlayStation)
Dracula X (PlayStation)
Croc (PlayStation)
Roscoe McQueen (PlayStation)
Rapid Racer (PlayStation)
Medieval (PlayStation)
Time Crisis (PlayStation)
Populous 3 (PC)
UEFA Soccer (PC)
F-22 (PC)
Infinity Wars (PC)

Arcadeview

Racing Jam (Konami)
PF573 (Konami)
Thunder Hurricane (Konami)
Polystars (Konami)
Hang Pilot (Konami)
Top Skater (Sega)

An audience with...

Peter Molyneux
William Latham

Out There

Japanese videogame advertising

Gallery

Final Fantasy VII
Dark Earth
Tobal 2



This issue sees **Edge** embarking on one of its most exhaustive investigations into the state of the videogaming art. In the past, Acclaim's reputation was undeniably tarnished by a deluge of development-by-numbers releases. However, with Iguana US, Iguana UK, Probe and Sculptured directing the content of its 32bit and 64bit line-up, the megabucks softco is now forging a new-found commitment to progressive and original videogames.

Edge 47 also heralds the magazine's foray into the world of digital media, courtesy of a complimentary CD-ROM. Some of the titles and sections listed opposite have been changed at the last minute in an attempt to create an even more diverse and exciting line-up – 600Mb might sound like a lot, but every last byte has been put to good use. Turn to page 13 for a complete listing of this eclectic excursion into the future of videogaming. Enjoy.

The future is almost here...







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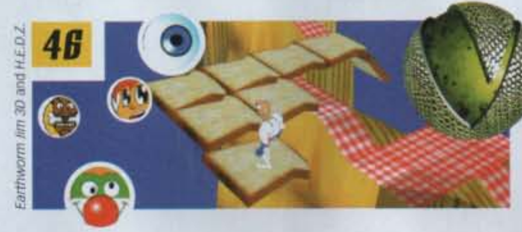
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Matt Stubbington, Iguana Entertainment



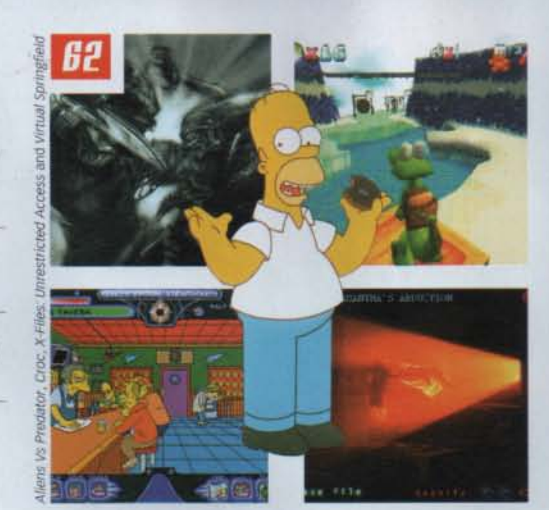
Rev Limit



Earthworm Jim 3D and H.E.D.Z.



Evolva



Aliens Vs Predator, Croc, X-Files: Unrestricted Access and Virtual Springfield

FEATURES



Photography: **Jude**















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Warp's *D2* for the doomed M2



Lamborghini 64



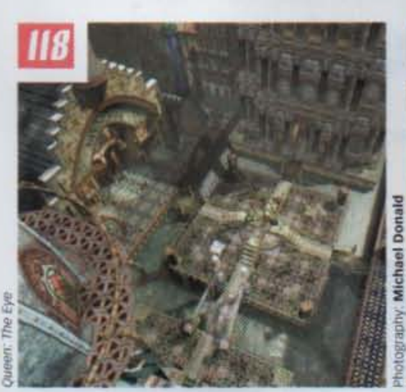
Plane Crazy



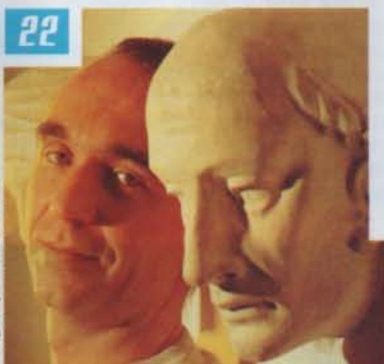
Little Big Adventure 2



V-Rally



Queen: The Eye



Photography: **Michael Donald**



Jurassic Park 2



Bomb Jack

REGULARS











Cutting Edge

The latest news from the world of interactive entertainment

MATSUSHITA FINALLY PULLS PLUG ON M2 WONDER PROJECT

The fate of Matsushita's blighted M2 technology has finally been sealed. **Edge** has discovered that the sole licensee of the technology has cancelled the entire consumer project in a move that could cost the Japanese giant hundreds of millions of dollars.

News reached **Edge** at the end of May that 3DO's ill-fated 64bit technology is unlikely to ever make it into the homes of Japanese or western gameplayers in the form it was intended. The reasons cited for the decision include the irrepressible strength of Sony in the videogames market and a hardware specification that would have had difficulty competing with forthcoming consoles from rival companies. **Edge** understands that an official announcement will not be made by the company because a Japanese launch strategy was never officially made public.

This news should come as little surprise to those who have closely monitored the development of the format. For more than a year there has been little noise made by the consumer electronics giant and many industry pundits have suspected that things were not going according to plan. Prospective M2 developer **Rob Povey** at Boss Game Studios echoed this viewpoint: 'It doesn't surprise me a great deal but I have to say I'm a little disappointed. Matsushita would hardly have been in a strong software position if they had released – even if the first round of games had been excellent. Where were the second and third round games coming from? Their reluctance to talk to and reassure thirdparty developers on their plans for the platform (outside of Warp, Capcom and Konami, I assume) would have left them with a lack of software after their initial releases, which would probably have condemned the platform in the long term anyway.'

While those who sat on the fence throughout the machine's development can thank their consciences for being prudent, there can be no denying that this decision represents a final kick in the teeth for those who stood by the format during its teething problems. Committed Japanese developer Warp certainly has the most at stake. The company's realtime 3D adventure game *D2* has been in development since the very first M2 development kits were released by The 3DO Company over two years ago and this news leaves boss Kenji Eno with little choice but to consider porting the title to a 32bit console or perhaps even the PC.



The M2 console was all but complete and included an N64-style pad featuring an analogue stick and jog shuttle wheel (right)

A similar course of action seems likely for other known M2 titles in development such as *Power Crystal* (**E**43) and Studio 3DO's 'M2 Racing'. The latter was a title that originally lead the M2 hype charge and was revealed to US games magazines recently, probably in an effort to draw attention to the title and secure conversion rights for the aborted project. However, when **Edge** contacted the Californian developer for a comment about the move, the company denied all knowledge of the cancellation. As for Hull-based






To date, D2 has been the most potent example of what the proposed M2 technology could do, with expansive 3D environments and remarkably atmospheric realtime lighting and reflection effects. Hopefully the 64bit hardware will be put to good use in coin-ops or accelerators for the PC

From birth to death

July '94 **Edge** uncovers the world's first details on Bulldog, M2's original development codename at that time

Sept '94 3DO confirms existence of Bulldog and announces moniker 'M2 accelerator' and the use of a PowerPC CPU

Nov '94 3DO boss Trip suggests M2's performance is 'substantially more than 1 million polygons/sec

Mar '95 **Edge** prints updated specs. Matsushita is declared the first M2 hardware licensee

Apr '95 Rumours abound of the involvement of Philips and Japanese heavyweights Konami and Capcom with M2

May '95 M2 strategy officially unveiled in New York one month prior to E3. Infamous prerendered racing game 'demo' presented

June '95 The first E3 show is the venue for the M2 hype machine to start in earnest. Hardware mock-ups and silicon are shown

July '95 Development kits make it to select thirdparties. Fifteen titles confirmed to be in development

Sept '95 **Edge** meets Dave Needle and RJ Mical, who head up the M2 development team. A standalone M2 console is promised for '96/7

Dec '95 M2 blueprints net 3DO $100m as Matsushita picks up the rights to the technology. 3DO commits to software-only strategy

Feb '96 Rumours fly around the Net linking Sega to M2. The Japanese company takes a development station for evaluation

Apr '96 Sega denies connection with M2 and is underwhelmed with dev kit. Konami signs up as first arcade licensee

July '96 Matsushita ramps up the power of M2's technology by adding a second PowerPC 602

Aug '96 **Edge** visits Panasonic Wondertainment in Tokyo where the M2 console is being developed. A January '97 launch announcement is pencilled in

Jan '97 UK developer Perceptions unveils work on its M2 game, *Power Crystal*, while Matsushita unofficially hints at delaying its launch plans

Feb '97 At the AOU show in Tokyo Konami shows off first game to use the M2 technology, *Polystars*. No mention of M2 is made

May '97 **Edge** receives confirmation from M2 insiders: the project is officially canned





Warp's grand-looking *D2* might now be PC bound – a Saturn conversion looks unfeasible

WHILE CONSOLE M2 PLANS HAVE BEEN ABANDONED, ITS IMPLEMENTATION IN THE ARCADE IS CONTINUING

Perceptions, **Edge** was unable to contact the company for a comment on the situation.

While all plans for the console incarnation of the M2 technology have been abandoned, its implementation in the arcade is continuing. Despite Panasonic's plans to play down Konami's use of the M2 technology in its *Polystars* coin-op (see **Edge Interactive** CD), the arcade company is expecting to release another polygon-based game soon with Capcom following suit (with a 3D beat 'em up) shortly after. It's also possible that titles in development for the console could still be ported to the arcade board.

With its interminable development delays, M2's perceived advantages over the competition have naturally suffered at the hands of time. With Sega and Sony already well into the development of their own second generation of superconsoles, the most Matsushita could have hoped for was a technological lead of around a year before more powerful machines would have eclipsed it. A likely destination for the complete M2 technology could be a 3D card for the PC although other consumer goods employing the technology cannot be ruled out.

Considering the sheer worldwide market presence of Matsushita, it seems likely that a new strategy using the experience assimilated from its work on M2 will be used to formulate a brand new videogaming agenda – **Edge** has already heard rumours of a much higher hardware specification and one that probably also encompasses DVD and Internet initiatives. What does seem clear, though, is that the company has realised that it will need a foolproof launch strategy if it is to stand a chance against the vast market share currently enjoyed by Sony. M2 in its current form clearly was not up to the job.

This turn of events ultimately places Matsushita in a difficult position. There is the embarrassment felt towards the thirdparties that have committed precious resources to developing titles, and there is the technology itself that could go to waste – a crying shame after so many promises. Matsushita may be able to stomach the enormous losses involved in the decision, but this will be no compensation for the thirdparties who now face the biggest obstacle of all: a console consigned to the shelf.







The 3DO Company, whose *IMSA Racing* M2 game was recently demonstrated in the US, seemed unaware of the format's cancellation when Edge contacted the company. The game is now likely to be reworked as a native 3D-accelerated PC title





SEGA-BANDAI MERGER COLLAPSES AS SATURN FALTERS





The proposed multi-million yen merger between Sega and toy firm Bandai has fallen through.

The deal, which was due to come into effect in October, would have created a new company named Sega Bandai, with the latter operation effectively swallowed up into the former. Strangely, Bandai's board actually agreed to the merger at a meeting on Monday, May 26, but then reversed its decision the next day. Now, however, the two companies will remain separate entities, yet retain a plan to work together as 'business partners'.

Although various theories have been put forward to explain Bandai's sudden onset of corporate cold feet, it appears the about-turn was down to a letter sent to Bandai president **Makoto Yamashina** by members of the company's middle management. These younger employees were concerned that the cultures of the two companies were too different and that the deal would adversely effect both Bandai's own growth and the working conditions of its employees. Yamashina simply announced: 'We could not see a clear picture of the synergy, which is after all the purpose of a merger.'

Some industry observers, however, have put forward an alternative theory to explain the collapsed deal. Although Bandai's profits have plunged in the last year from ¥10.4bn to a loss of ¥8bn, the company's recently introduced Tamagotchi has already bought in a profit of ¥1bn – a figure which is bound to increase over the coming months. It could be, then, that Bandai is now confident that it can find its own way out of financial difficulty without the help of Sega.

A final theory offered to explain Bandai's sudden change of heart is perhaps the most intriguing. Some industry pundits believe that Matsushita may be gearing up for a merger with Sega, and that this threat frightened off the comparatively lightweight Bandai.

Rumours suggest that Matsushita, which has purportedly had its eye on Sega for a while, may be interested in acquiring the company to strengthen game development for its M2 project.

However, this theory is severely tested by the fact that Sega has its own plans for 64bit development. Plus, of course, M2 has been canned. Whatever the case, Yamashina will be stepping aside as Bandai president as a result of the collapse of the deal, but will stay on as chairman.



Though staff at Sega's HQ were expecting to be working closely with those of Bandai soon, it's now transpired that it won't be *that* close

Although Sega remained

philosophical about the Bandai break-up, it is the latest blow in a month which has already seen several game companies pull out of Saturn development.

The US division of Acclaim, for example, has announced that Ocean's shoot 'em up *Project X2*, Take 2's *Iron and Blood* and the company's own *NFL Quarterback Club '98* have all been canned for Saturn release. Other companies like Radical and Atlus have also put development for Sega's system on the backburner. Ironically, even companies that do want to bring games out for the Saturn are finding it difficult to do so. US softco Crystal Dynamics has been unable to find a publisher to handle its Saturn version of RPG *Legacy of Kain* – despite the fact that the game is complete.

Shiny Entertainment's **Dave Perry** is philosophical about the whole Saturn situation. 'We fully support Sega – Shiny has invested a lot of time and money into the system with our forthcoming *Wild 9*.

'The problem is that we're planning on spending quite a lot more time developing *Wild 9*, and we're not sure what the Saturn situation is going to be like a year from now. So for the moment we've has to put Saturn *Wild 9* on hold. Ultimately, though, Sega seem focused on the future; so are we…'

However, perhaps the most disturbing news for Sega is that *Tomb Raider 2*, potentially one of the biggest titles of 1997, may not be released on the Saturn. When this information was first released last month, many put the decision down to the machine's poor market share, but Core is not cancelling all its other Saturn development – *Ninja* and *Fighting Force* are both still pencilled in for the format. When **Edge** spoke to Core, the company claimed that the game would not be converted to



The success of Tamagotchi has led some to speculate that Bandai does not need Sega



DD delayed

Nintendo has postponed the launch of its 64DD device due to delays in producing both games and drives. The unit, which was supposed to ship in time for Christmas in Japan, will now not be seen until March '98. This will almost certainly push back the US release to mid-'98 and may mean European gamers won't see it until Christmas '98.

When the device is finally launched, it is expected to be accompanied by four compatible games – *Mother 3*, *Sim City*, *Pocket Monster 64* and *Mario Paint 64* – sold separately to the unit itself. *Zelda 64*, which many hoped would be bundled with the 64DD, may not now be ready in time for the launch. The cart version of the game should still be released in Japan this year, however.

Evil cut

Capcom is developing a 'director's cut' version of *Resident Evil*, which should be released on the PlayStation in the autumn. The new version of the game will feature new graphics and





***Tomb Raider 2* (left) has now been cancelled for the Saturn. Its developer, one-time Sega stalwart Core Design (*Ninja* staff pictured right) claims that the system simply cannot handle the game's new 3D routines**

Sega's machine because it is not able to cope with the vastly improved 3D engine. Others believe, however, that Sony is trying to tie down an exclusivity deal with Core which will mean the game can only appear on the PlayStation. Whatever the case, its a serious blow for a machine desperately in need of triple-A software support.

And Core is not the only key British software company to pull a significant title out of Saturn development. Bullfrog, too, has made the decision not to produce its highly acclaimed strategy title, *Syndicate Wars*, on the platform. As head of conversions, **Steve Metcalf**, told **Edge**, 'It's quite simply not being developed because we don't see a market there which is substantial enough to cover the develop costs. In fact, all Saturn development has ceased at Bullfrog for the foreseeable future'. Metcalf is also pessimistic about British Saturn development in general: 'I think this is going to happen increasingly. We'll have to see what the price decrease [see next page for Currys and Dixons news] does, but if you look at the market share, Saturn is way, way behind'.

Although in the past Sega has sought to deny any problems with its 32bit console, recent events seem to have prompted a more realistic standpoint. Last month, the company admitted it expects to ship just 1.9 million Saturn units worldwide this year – half as many as in '96 – and says that next year it must concentrate on producing software rather than unprofitable hardware. It denies, however, that Saturn hardware production will cease altogether.

Reflecting this practical reappraisal of the hardware market is the company's recent decision to drop the price of the Saturn in the US to $149 (or $169 bundled with *Sega Rally*, *Virtua Fighter 2* or *NiGHTS*). This will bring the console in line with the PlayStation and the N64 which have been selling at a lower retail point for several months. Sega has also cut the price of its NetLink peripheral by half to $99 and has introduced a Saturn/NetLink bundle for $249.

Even software has been targeted in the price crackdown: more than 30 Saturn titles have now been placed within the $20-$40 price range (including *NiGHTS*, *Fighting Vipers* and *Virtua Cop 2*) and no games will exceed the $50 tag.

Unsurprisingly, many industry analysts feel that Sega should have waited until E3 to make such an ▶



Saturn production is believed to be still going ahead, although the company has set a worldwide sales projection for '97 of only 1.9m

Mac gets 3Dfx

3Dfx is getting together with peripherals company Techwerks to develop a Mac version of its Voodoo-based accelerator board.

Although the actual design of the board has not been revealed, 3Dfx is confident that the conversion process is a simple one and that games which have been designed to write to the technology's Glide API (ie PC games that are already Voodoo compatible) will translate readily to the Mac. This may well provide a significant shot in the arm to the Mac games market which has flagged over the last two years.

Meanwhile, in a recent report to the US stock exchange, 3Dfx has revealed that Electronic Arts is set to invest $3m in the company. Curiously, though, a section which put forward Sega as a possible investor in a previous version of the report has been removed. However, references are still made to a Sega/3Dfx chipset and the development of a 3D subsystem for, 'Sega's next home console'.

Away from investment concerns, 3Dfx has been preparing for a huge presence at E3. Between 150 and 200 titles are expected to support 3Dfx in some capacity at the show including *Jedi Knight*, *Hexen 2* and an Antipodean-developed racer, *Powerslide* (below). There will also be five stations running Obsidian (ie arcade)-class hardware and showing special versions of *Prey*, *Quake 2*, *Unreal* and *Earthseige 3*.



camera angles, and certain elements have been rearranged to give players of the original fresh surprises. There will also be three levels of difficulty, the highest of which should attract veterans of the previous title *Resident Evil*. *Directors Cut* will also feature a sneak, partly playable preview of *Resident Evil 2*.

Meanwhile, Virgin has negotiated a deal with Capcom to publish the PC version of the original *Resident Evil*. The title supports the PowerVR card as well as other 3D accelerators.

Nintendo video bonus

Nintendo has sent out a free promo video to *Nintendo Power* subscribers in the US.

The video features clips of *Star Fox 64*, *Yuke Yuke Trouble Makers* (under the title *Mischief Makers*) and *GoldenEye 007*, as well as several other imminent N64 releases.

The video shows the Rare-developed *GoldenEye 007* running with a fourplayer split-screen mode – it was not known until this point that the game would include a multiplayer option.

No-Turok shock for 32bit flock

Acclaim US has chosen not to develop a PlayStation version of *Turok: Dinosaur Hunter*. Allegedly, the company feels that designers would have to make too many compromises with the game's lush 64bit visuals.

This is certainly an important victory for Nintendo in the battle with Sony for market

Talkback

An irregular look inside the heads of some of the world's leading videogame designers

Q: If hardware limitations were no obstacle, what kind of game would you create?

Yu Suzuki: I would reproduce movie-quality images in realtime 3D. It would be like an interactive movie. It would also take advantage of some kind portable screen that would be clearly visible outdoors. It may also involve some kind of link cable.

Shigeru Miyamoto: I do not believe in Yu Suzuki's notion of being able to play outside. You need to be sitting in front of a TV. Also, why are we limited to a square TV? The perfect screen would have no limits.

Yoshiki Okamoto (creator of *Street Fighter Zero 2* and *BioHazard*): I would like to make an RPG. Development on it wouldn't take long, it's frivolous. It would be a game where you could have fun playing without spending a lot of time with it. It would be some kind of serial game. There would be a new part every month. If it was done properly, you could play for 30 years.

Q: What would you be doing if you weren't designing videogames?

SM: I only make games.

YO: I would like to buy land in New Zealand and raise sheep.





One of the UK's most important developers, Bullfrog, will not produce any more Saturn titles

important announcement. However, the company has argued that it wants attention at the exhibition to be focused entirely on games, rather than hardware – a point which reflects its software-led business plans for '98.

Meanwhile, on this side of the Atlantic, no official price drop has been announced, but Dixons and Currys are both now selling the Saturn at £99 – the 3DO system's final official price point before drifting into bargain bin oblivion.

But it's not all doom and gloom for Sega. The price of the company's stock on the Nikkei index zoomed up when the Bandai merger fell through, and it made a profit of ¥2bn for the fiscal term ending March 1996.

It now remains to be seen whether titles such as *Virtua Fighter 3* (if indeed it appears on 32bit) and *Resident Evil* can turn around the fortunes of the Saturn and halt its slippery slide into obscurity.

Edge would certainly be sad to see such a diverse format wither and die.



Saturn *Legacy of Kain* is complete, but its creator, Crystal Dynamics, cannot find a publisher to take the title on

TIGER LAUNCHES INTERNET HANDHELD

Tiger Electronics, known mostly for its line of LCD games, has released a cartridge-based handheld system offering gaming and Internet facilities, in the US.

Called Game.com, the unit is intended to compete with Nintendo's Game Boy, and it uses similar technology, including a Z80-based CPU and a black-and-white LCD screen. The display is larger than the Game Boy's, however, and is exceptionally clear with a nice resolution. Roughly the same size as Sega's Game Gear, although thinner, the Game.com features a D-pad and four fire buttons. Significantly, though, the LCD also functions as a touch-screen interface, and the unit comes equipped with a stylus for precise pointing.

Game.com comes packaged with the puzzle game *Lights Out*, and retails at $70, while built-in software includes a calculator, a solitaire game, a phone number an address database, and a simple calendar. The unit features the usual jacks for headphones and AC adaptor, as well as a comms port for connecting the unit to a phone plug. This is used in conjunction with the Game.com's Internet Cartridge – in the US, for $19.95 (modem and Internet account costs are extra), the cart enables users to send and receive e-mail, and perform some other limited, text-based Internet functions.

The unit showed to **Edge** offered playable beta versions of *Indy 500*, a racing game, and *Wheel of Fortune*. Also shown were non-playable demos of *Duke Nukem* and *Batman & Robin*. *Indy 500* was less than exciting, although *Wheel of Fortune*, with an interface designed around the stylus and touch screen, was much easier to play than any version previously available. *Batman & Robin* is a typical side-scrolling action tie-in, but *Duke Nukem* looks quite promising. With regard to the conversion, **Allen Richardson**, a producer at Tiger, admitted that the Game.come is 'not really a 3D machine – the 3D in *Duke* is simulated.' As well as performing some clever pseudo-3D routines, *Duke* also highlighted another Game.com feature: a liberal use of voice samples, unusual for a handheld system.



As well as it comms capabilities, another of the Game.com's significant aspects is its dual cart port

Most other Game.com titles are ports of titles from other consoles, and while some thirdparties have expressed interest in developing for it, Tiger currently plans to use only in-house development.

Cartridges retail in the US in the $20-$30 range, with five titles available at launch and another 13 by the end of the year, including *Madden '98* and *Fighters Megamix*. 'Since our carts are in the 16Mbit range, *Madden* will probably be the toughest title to do,' says Richardson. 'We're also trying to do something more with *Megamix* than turn it into a 2D fighter.' With no *Tetris*, though, it remains to be seen whether the ageing Game Boy is under any immediate threat.

The unit is set for a UK release (though no date has yet been set), and it will be interesting to see how it will fare in a market where handheld gaming is very much yesterday's news. Its unique Internet capabilities will no doubt play a large part in the amount of interest it stirs.

domination. Sony won two significant battles last year by securing Enix and Square as PlayStation developers.

LucasArts draws saber

LucasArts is developing a 'Star Wars' beat 'em up which should be released on the PlayStation in Autumn in the US, and probably Christmas/early '98 in the UK. The game, which features most of the main characters from the sci-fi trilogy as well as a new fighter, Arden Lyn, is entitled *Star Wars: Masters of Teras Kasi* (Teras Kasi being a martial art based on harnessing the power of the force). Characters will be able to fight with light sabres, blasters and flamethrowers as well as kicks and punches, and backgrounds include Yoda's hut, Cloud City and the Rancor's pit. More should be revealed at E3.

Eidos cashes in

Eidos has announced sales of £75.5m for the year ending March '97 – possibly mostly down to Core's hugely successful *Tomb Raider*. The company's pre-tax profits for the period were £7.6m, a vast improvement on the £1.9m loss made in the previous year.

3Dfx goes public

3Dfx has finally officially announced its decision to go public and float itself on the US stock exchange. The company plans to initially offer



Last year's E3 event, held in Los Angeles, proved to be one of the highlights of the games calendar. This year's, though, is expected to be the most exciting software show to date





Nintendo's pre-E3 publicity material hints at its new game character, to be seen in ***Banjo-Kazooie***

E3 TO SHOWCASE 1,500 NEW GAMES

As well as hosting last year's Olympic Games, Atlanta will welcome this year's Electronics Entertainment Expo, the calendar's biggest interactive entertainment event. Whereas 1996's show was held in LA's Convention Center, its success resulted in an increase in the number of companies booking stands for this year's expo, forcing the owners – US trade body IDSA (International Digital Software Association) – to look elsewhere as the LA site was unable to accommodate the growth in interest.

Doug Lowenstein, IDSA's president, recently told trade newspaper, *Computer Trade Weekly*: 'It's not our place to tell people they can't come to E3 or to impose limits on stand size. It's our job to provide the right environment for our industry to express itself in the best way it sees fit – and that just couldn't be done in LA.'


Sony had a huge presence at 1996's E3, but it will face a big, committed push from Nintendo this year

Last year's E3 was memorable in that it represented a resurgence of the interactive entertainment industry after the period of decline which followed the tail-end of the 16bit era. The second generation of 32bit software, combined with the western showcasing of the N64, resulted in a sense of optimism rarely felt at such an event.

The scale of the show – 500,000 square feet fully occupied by 400 stands and requiring $100 million dollars of investment – was also unprecedented.

With little new hardware to be revealed at E3 this year, companies will be focusing their energy on software. The IDSA has announced it expects 1,500 new titles to be unveiled at the show. A survey it conducted revealed that 65% of this new software is within the entertainment sector, and can be broken down into 37% action/adventure, 17% strategy/puzzle and 11% sports titles.

Nintendo will once again have the largest stand of the show. Top of its list is Rare's *Banjo-Kazooie*, a game shrouded in secrecy (but known previously as 'Dream') which features the eponymous duo. Other major titles from the playability master include the cart version of *Zelda 64*, *GoldenEye 007*, which now features a fourplayer option, and *Yoshi's Island 64*.

Thirdparty developers will also be out in force to support the N64. Ocean will have the promising action adventure *Mission: Impossible* and driving title *Multi-Racing Championship* to provide much-needed diversity for the N64's sparse games catalogue.

Continuing its work on Nintendo's machine following the classic *ISS64*, Konami will offer 64bit versions of *Castlevania* and *Contra*, as well as showing the impressive-looking *Metal Gear Solid* for the PlayStation.

Sony's stand will be out in force again, with an extensive PlayStation line-up including *Crash 2*, *Blasto*, and Psygnosis' range of PC and PlayStation titles including *G-Police*, *F1 '97*, *Rascal*, *Shadow Master* and *Psybadek*.

Further support for Sony's machine comes from Namco which continues its PlayStation development with the lightgun-compatible title Time Crisis, together with a possible look at *Tekken 3*.

The Saturn might not longer have the kind of thirdparty support as some of its competitors, but Sega is not giving up on its machine just yet, with the promise of some high-calibre software. *Virtua Fighter 3* should make an appearance (possibly on video), along with *Last Bronx*, *Project Sonic*, *Sonic Jam*, *Touring Car Championship*, ▶

3 million shares to the public at between $9-$11 a share. The actual date of the share offer has not yet been confirmed.

Activision Quakes

Activision has won the publishing and distribution rights for *Quake 2*, beating off competition from GT Interactive which previously published *Quake* and *Doom*. Activision, which also handles *Hexen 2* and the *Quake* mission discs, is said to have paid $8m for the eagerly anticipated sequel and may give up to 40% in royalties payments to id. The game features new technology such as rotating brushes and transparent textures as well as new enemies and locations.

Game over for Feds

Improbably named North Carolina senator, Launch Faircloth, is proposing legislation which would ban US federal employees from having games on their PCs. He believes the increase in productivity which should ensue will save taxpayers millions of dollars. Rubber-band fights are no doubt next on his prohibitive agenda...

Namco reopens Museum

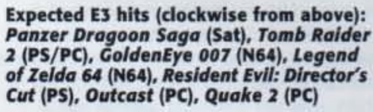
Namco has announced plans for a further title in its PlayStation *Museum* series, which was believed to have been concluded. *Namco Museum Encore* will feature seven old games, although details of what the titles will be are currently sketchy – although **Edge** knows that *Rolling Thunder* will be included.










Expected E3 hits (clockwise from above): *Panzer Dragoon Saga* (Sat), *Tomb Raider 2* (PS/PC), *GoldenEye 007* (N64), *Legend of Zelda 64* (N64), *Resident Evil: Director's Cut* (PS), *Outcast* (PC), *Quake 2* (PC)









Worldwide Soccer '98 and *Panzer Dragoon Saga*.

Resident Evil will feature heavily from Capcom: Saturn and PC owners are getting the original version of the title while the PlayStation has a *Director's Cut* edition (see Alphas), as well as the long-awaited sequel.

Eidos, with a considerably bigger stand than last year's effort, will be showcasing the sequel to *Tomb Raider* for the PlayStation and PC, and hopefully visitors might also catch a glimpse of *Ninja*, Core's other project for 32bit platforms.

PlayStation and Saturn versions of *Quake* will be shown (the N64 version is being handled by Midway), while the sequel will make an appearance on the PC.

Also on the PC is *Hexen 2* from Activision, which hopes that Raven's game will steal the title of leading firstperson-perspective shoot 'em up from rival id Software.

Pleasingly, developers for the PC seem to have recognised the advantages of online play, with plenty of games on show supporting this option.

'The specialist online companies aren't taking up any more space than they did last year, but there won't be many PC games that don't feature multiplayer capabilities,' said Lowenstein, 'and I think the show will give an idea of how far online gaming has moved into the mainstream and become as essential part of every publisher's plans in a relatively short period of time.'

Other innovators include Intel, which is attending the show for the first time and will be unveiling Shiny's next project, *Messiah*, in showcasing its technology – a decision which has been welcomed by the IDSA. 'Intel is a company that literally affects the way people live their lives,' enthused Lowenstein. 'They've spent millions of dollars developing the MMX chip – the first application they use to showcase it is games and the event they unveil it at is E3. That's a tremendous coup not just for us but the industry as a whole.'

The organisers have already conceded that the expected attendance for the event will not match last year's 57,000, but according to Lowenstein, this is not something that perturbs them. 'In LA, about 10,000 people showed up on site, they represented very casual traffic; at best peripherally related to the entertainment business let alone the software business. And exhibitors don't like browsers. This year's attendance will be in the low forties, but as far as the exhibitors are concerned, everyone that needs to be there will be there.' Including **Edge**.

EA ACQUIRES SIM KINGS

Videogame giant EA has 'purchased' Maxis in a $125m share-swap venture. Although the deal, which is expected to go through in August, is being called a merger, EA will no doubt gain substantial control over the much smaller softco.

Whatever corporate intricacies are involved, however, this agreement would appear to have come at a convenient time for both companies. EA is currently enjoying a period of expansion having recently purchased Bullfrog and entered into discussions with several other developers around the world. Maxis, meanwhile, has been finding it difficult to cope as a comparatively small company trading on Wall Street. Although the developer projects global sales of $60-70m this year, it posted a net loss of $1.7m for the financial year ending March 31, and its share price went down to $11 (compared to EA's $30).



Maxis' *Sim City 2000*, one of the company's biggest games

The deal will certainly give Maxis a financial safety shield and an easier avenue into global distribution, allowing it to concentrate on developing games. In return, Maxis will be releasing several new titles over the next few months including *Sim City 3000*, *Lunar Sim* and *Streets of Sim City*.

RAGE FOR THE MACHINE







ATI's 3D Rage Pro looks set to be one of the more powerful combined 2D/3D cards on the market. Its compatibility with Intel's new AGP high-speed interface marks it out as a desirable piece of equipment

ATI has unveiled a new AGP-compatible version of its successful 2D/3D Rage accelerator chip.

AGP 3D Rage Pro, which is claimed to offer three times the performance of previous generations, features a 4Kb texture cache and a floating point set-up engine. It also boasts a rendering engine capable of delivering 1.2 million triangles per second and a peak fill rate of 75 million textured pixels per second. Plus, the technology supports popular effects like bi/trilinear filtering and texture compositing. In 2D terms, the chipset boasts support for DVD and MPEG2, increasing playback frame rates by 20-30%.

This will be the first 2D/3D video card to support AGP, Intel's new motherboard connection standard which has been designed for increased graphics performance. According to ATI, 3D Rage also supports AGP's pipeline and sideband protocols, 'which significantly improve the sustained bandwidth that is critical to 3D and video performance'. **Edge** recently saw a Rage Pro-specific demo of *F1* which showed plenty of detailed textures, but a slightly slower frame rate than the 3Dfx version. However, the ATI card will be cheaper and represents a complete videocard solution, which will no doubt attract a sizeable contingent of PC owners.

AGP 3D Rage should ship in the second half of '97 (alongside Intel Pentium II machines), while a slightly slower PCI version – designed for current-generation PCs – is due to ship in July.

Edge CD contents



Prescreen
BladeRunner (PC)
Broken Sword 2 (PC)
Dracula 3D (N64)
Croc (PlayStation)
Daikatana (PC)
Dracula X (PlayStation)
Dreams (PC)
Earthworm Jim 3D (3Dfx/N64)
Evolva (PC)
Forsaken (PC)
Ganbare Goemon 5 (N64)
Infinity War (PC)
Jedi Knight (PC)
Lands of Lore 2 (PC)
Joint Strike Fighter (PC)
Medieval (PlayStation)
Metal Gear Solid (PlayStation)
Populous 3 (PC)
Rapid Racer (PlayStation)
The Curse of Monkey Island (PC)
Time Crisis (PlayStation)

Arcadeview
Hang Pilot (Konami)
PF573 (Konami)
Polystars (Konami)
Racing Jam (Konami)
Top Skater (Sega)

An audience with...
Peter Molyneux, William Latham

Big in Japan
Japanese videogame advertising

Retroview
Bomb Jack (MAME emulation)
Commando (MAME emulation)
Ghosts'n'Goblins (MAME emulation)
Ghouls'n'Ghosts (C64 music)
Rastan Saga (C64 music)
Skate or Die (C64 music)
Sanxion (C64 music)
Wizball (C64 music)

The **Edge** CD presents the latest titles to emerge from the world's top developers. Due to footage-quality issues, some impressive late arrivals and a lack of CD space, the contents list above contains both additions to and omissions from the list printed on the CD gatefold.

To run the CD, QuickTime must be installed on a PC or Mac – a copy of QuickTime is included on the CD, complete with its own installer. To run the **Edge** CD on PC, place it in the CD drive and it will run automatically. Macintosh owners must locate the **Edge** CD icon on the desktop, then double-click it. Please note that some previews are early and lack sound, in order to keep the video quality high. **Edge** regrets that those without the following minimum system requirements will not be able to run the disc.
PC: 16bit (thousands) display, 4xCD-ROM drive, 16Mb RAM, QuickTime for Windows
Mac: 68040 processor (LC475 or later, including all Quadras and Power Macs), 8Mb RAM, colour monitor, 2xCD-ROM drive, System 7.0 or later, QuickTime 2.0, Sound Manager 3.0

Title music: 'Kaleidoscope' by Art of Trance (Platipus)
To play the entire track, exit from CD interface and skip to track two on a CD audio player. (Do not attempt to play track one as this could damage audio equipment.)















On the CD (clockwise from top left): *Daikatana, Metal Gear Solid, Dracula 3D, Ghosts'n'Goblins, Racing Jam, Ganbare Goemon 5*

(out there)

REPORTAGE FROM THE PERIPHERY OF THE VIDEOGAMES INDUSTRY

Sony gathers tribes

Sony's underground marketing efforts are still very much in flow as its presence at this year's Tribal Gathering attested. TB97 was the biggest dance-only music event ever held in the UK and the games giant added a touch of style to the rather muddy and chilly proceedings by taking space for an invitation-only VIP tent which was decked out with plush sofas, a few PlayStation pods, and an copious supply of free booze. Its plans for DJ PlayStation challenges ran into trouble, though, when it was discovered that the main VIP tent couldn't cope with the projection system and a rather weedy projected screen image resulted. Either that or all those involved got horribly messy and forgot to turn up...

The PlayStation may be the only console with a mass-market consciousness but it's also managed to obtain some counter-culture kudos by being associated with events such as this. Needless to say, the Nintendo Challenger bus was nowhere to be seen.







Yes, but is it Art?



The Barbican Art Gallery is running an exhibition based on computer technology and interaction. Called 'Serious Games', it is billed as an attempt to use the 'participative structure' of videogames to explore serious issues like mental health, disability and the value of money. Each of the works of art in the show makes some use of modern technology (CD-ROM, Internet, virtual reality, etc) and allows the viewer to get involved – unlike in other modern art exhibitions.

Among the eight exhibits is Char Davies' 'Osmose's installation, which requires the viewer to wear a VR HMD set and a 'sensory vest' and then enter a virtual world where movement is controlled by breathing. Then there's 'Resonance of 4' by Toshio Iwai, where four participants have to stand on floor tiles and create computer-generated music – perhaps the world's first multiplayer piece of art...

Most interesting, though, is Jim Campbell's installation, 'Hallucination', where viewers enter a video projection and see themselves engulfed in flames.

The exhibition runs from June 19 to August 17. Contact the Barbican Art Gallery on 0171 638 8891.

Tomb Raider is Bullock's

Edge's US sister magazine, *Next Generation*, recently ran a poll on its website asking readers who should play Lara Croft if a *Tomb Raider* film were made (which is apparently a distinct possibility). The number-one suggestion, with 30% of the votes, was 'Speed' star Sandra Bullock (right), who was felt to have the right look and was experienced in action films. Other predictable top ten entries included Elizabeth Hurley, Pamela Lee-Anderson and Uma Thurman.

Less predictable, though, was Lucy Lawless ('star' of god-awful swords'n'sorcery TV show 'Xena'), who made the top five, and diminutive Aussie Kylie Minogue, scraping in at 20. However, after her sister's recent trip to the cosmetic surgeon, perhaps Dannii would be better equipped to take on the role...





Ghost music

Spurred on by *Wipeout*'s successful blend of videogames and dance music, Sony's Japanese publishing arm has licensed a number of western-produced techno tracks, from artists such as Derrick May, Hardfloor and CJ Bolland, to provide audio accompaniment for its forthcoming PlayStation title, *Ghost in the Shell* (below), based on the popular anime movie. Expect other Japanese developers to pick up the trend soon...





EDGE SINGLES OUT THE WINNERS AND LOSERS IN THE INTERMINABLE BATTLE FOR VIDEOGAME CRED

(game on)

Force-feedback joysticks. First discussed in **Edge** 35, these devices, currently being engineered by a number of joystick manufacturers, could represent the biggest revolution in game control since Nintendo introduced the D-pad concept with its Game & Watch handhelds way back in the early '80s.

The announcement of **Pocket Monsters** for the N64. The Game Boy version (which allows players to connect two handhelds and put their monsters' into battle) has already sold 2.5 million copies in Japan – after the Tamagotchi phenomenon, is this officially The Next Big Thing?

A **Saturn** for 100 notes. Pop down to Dixons or Currys and get hold of a machine capable of playing some of the greatest games of the '90s, including *Sega Rally*, *Fighters Megamix*, *Virtua Fighter 2*, *Virtua Cop 2*, *NiGHTS* and *Dragon Force*.

Dave Perry's **Messiah** project. His technology must be hot if Intel is using it in presenting its keynote speech at E3...

Nintendo's 'secret' new N64 mascots, **Banjo** and **Kazooie**. Hold on, don't tell us... one of them wields a banjo, while the other plays a mean kazoo? The game may well turn out to be spectacular, but **Edge** smells the grim whiff of US marketing.

Gremlin's press release announcing the company's plans to go public, estimating the value of the Sheffield-based softco at 'between £45 and £55'. Overpriced, surely...

Tomb Raider's **Lara Croft** making the cover of *The Face*. Sadly, it would appear that smudged mascara and protruding ribs are beyond the capabilities of Core's graphics artists...

Matsushita's **M2** superconsole. Trip Hawkins and The 3DO Company's dream finally crumbles to dust, leaving all those involved in the project mourning the passing of an era.

The delay of Nintendo's **64DD** until March 1998. The company will know doubt be hoping that the unit's price tag – just ¥10,000 (£50-60) – will ease the pain of waiting.

Tamagotchi. No, **Edge** doesn't give a toss what yours is called.

(game over)

Where are they now?

NAME: **PHILIP MITCHELL**
FAMOUS GAMES: ***THE HOBBIT, PENETRATOR***





Melbourne House's *The Hobbit*, released in 1982, is one of those seminal 8bit titles that game players all over the world remember fondly. Until its release, adventure games had been text-only affairs, but *The Hobbit*'s detailed, colourful graphics and in-depth gameplay signalled a new direction for adventures in the following years.

The game was created by a team of 17 people – an extraordinary number given that most games in those days were the work of single coders – and its programmer **Philip Mitchell** still works for the Australian developer to this day.

'Although we didn't know when we were creating it, *The Hobbit* ended up consuming some people's lives,' he reflects. 'People held their own *Hobbit* evenings, and monthly games magazines even allocated the game its own regular section.'

This obsessive passion fed off of what was essentially a sophisticated parser and a truly engrossing storyline – something that came out of Mitchell's love of the very first adventure games. 'I got hooked on text adventures at university and was blown away by the concept of an interactive story. Prior to that, videogames had just been *Pong* and things like that.'

While Mitchell respects modern graphical adventures such as *Myst*, he's still passionate about the depth that text adventures permit. 'It's a bit like the difference between a good book and a video,' he believes. 'The pictures created in your head are often better than the ones on screen...'

VIDEOGAMES ON THE EDGE

The games – old, new, whatever – that have brought work to a standstill in the Edge office this month

Runabout (PlayStation)
It may not offer much in the way of true lastability, but the adrenaline rush Climax's game provides as players Starsky and Hutch their way around enormous levels.

Puzzle Bobble (Neo-Geo)
Edge dusted down its trusty Neo-Geo system ('Max 330 Mega'!) to play the original version of Bub and Bob's bubble-bouncing bonanza. And it's still fantastic.

Time Crisis (PlayStation, beta version)
Namco's classy lightgun coin-op hits home in grand style thanks to masterly conversion skills and its GunCon peripheral, a well-constructed little device.

Commando and **1942** (Mac *MAME* emulator)
Classic shoot 'em ups never die, they get their original code ripped out for use in computer emulators. These two, from Capcom's golden era, still play soundly.

Rapid Racer (PlayStation, beta version)
A real graphical leap forward for PlayStation software, this powerboat game, from Sony Europe's in-house development team, runs at 50fps (PAL) in glorious hi-res.

nuMedia

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in association with

No 15



CD-ROM 

The Oasis Songbook Interactive

As any guitar pro will attest, Oasis songs are notoriously easy to play. Most of them contain all the standard guitar chords like G, A and D, with hardly a barre-chord (the tricky ones prone to hurting fingers) in sight. Noel isn't known for his outstanding guitar pyrotechnics, just good solid songs, making Oasis the perfect choice for the beginner.

Simplicity is also what makes *Oasis Songbook* a sound purchase. The user chooses a song and then gets a lesson in how to play all the chords it contains. An image of a hand fretting each chord individually shows exactly where fingers must be placed – a method that is much easier to understand than the conventional chord boxes guitarists normally have to struggle with. Once users are au fait with the chords, they can move along to playing a song. However, to suit the beginner, all the widdly lead parts are left out of the process.

Perhaps the most impressive aspect is the fact that *Oasis Interactive* features real CD audio versions of all the songs from 'What's the Story...'; there are no session musicians standing in here – the user is virtually playing along with Liam singing and Noel backing throughout. As each track plays you're prompted with the chords you should be strumming; both the chords and the music are synchronised perfectly, so you get plenty of time to get ready for the changes.

Significantly, the songbook isn't all there is to this disc. A pretty comprehensive multimedia section, which includes the usual collection of biographies, press cuttings and quizzes, completes the package, making it almost worthy as a purchase to non-guitar strummers.

As an introduction to guitar playing, *Oasis Interactive* works perfectly. The more experienced guitarist will find all this strumming a bit boring, but the Oasis fan who merely wants to learn how to play along to his idols' tracks will adore it.





• Published by Europress • PC
• Developed by Northstar Multimedia • £30





Music Machine

Budding electronic musicians could do much worse than to lash out a paltry £16 on this electronic music software package. It's not *CuBase* by any stretch of the imagination, but rather aims to provide a gentle introduction to the idea of creating music on your PC, and particularly to basic concepts like overdubs, samples and multi-tracking.

At the main screen, you click on a bookcase to select a musical style – all forms of electronic music, from hip-hop to gabba, are represented, although the ready-made tracks tend to be infused with a worryingly high level of Euro-cheese. Having selected a track it's off to the Arrange room. This lets you take the basic building blocks which constitute the track you've selected, arrange them using a clean visual interface, and add overdubs and samples from a massive sample library (but you can introduce your own).

The Arrange room is where it all happens. Each track has four different sections, and you can create your own efforts using different combinations of these. Plus, you can drop out the bass, keyboards and/or drums if required. But the main means of imprinting musical genius on your track is by using overdubs, which are essentially samples that you drag and drop into one of the bars making up each musical section. When you're happy with the arrangement, it's off to the mixing room, which is pretty rudimentary, but will give you a general idea of the basic principles.

You can also mess around in a virtual DJ's booth, attempting to mix the tracks you've created (this is no substitute for a pair of SL1200s and a mixer, but it's not bad effort). Don't expect to be able to use *Music Machine* to get yourself onto 'Top of the Pops', but if you fancy being the next Photek or whoever and don't have the foggiest notion of where to begin, this is an ideal starting point. It's a sort of 'Janet and John' of electronic music generation. And that's meant as a compliment.

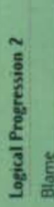
• Published by Pearson New Entertainment • PC
• Developed by Music Generation Software • £16

Music 

Lipslide
Sarah Cracknell
Gut Records



Everyone should own a copy of 'So Tough', the second album by Saint Etienne, Cracknell's other musical persuit. The sheer variety and mellow exuberance of the music, complemented brilliantly by Sarah's honey-tinged voice, made it the best 'lazy summer afternoon' album of the '90s. 'Lipslide', Cracknell's first solo offering, is much less diverse and affecting, but still has its moments. 'Reacy or Not', for example, is Etienne circa 'Tiger Bay' – sweeping, tragic – while 'Anymore' and 'Taxi' are consummate dance-lite. Not as banging as this month's other offers, but chic in its own way.


Logical Progression 2
Blame
Mango/Island



Logical Progression returns with Level two of the jungle collective, mixed by the hands of Blame, alongside Logical veterans LTJ Bukem, PFM and main vocalist MC Conrad.

This time around a slightly more laid-back and ambient feel is created with hypnotic rhythm and classical instrumental backbeats. Similarities to the first album can be detected, though Blame have refined it well, with more melody.

Part two is unmixed and has great tracks from PFM ('Love & Happiness') and Blame ('360° Clic') with vocals from MC Conrad and DRS. Junglists with intelligence should seek it out.

Gadgets



- PT-6233/AX
- Elonex
- £TBA
- Available now

AMD K6-based mini-tower PC

Elonex may be best known as a supplier of PCs to big companies and government agencies, but its keenness to get the most out of new technologies as soon as they appear, allied to its ability to build a PC to whatever specification users require in its North London factory, make it the perfect manufacturer for those looking to acquire a machine which runs games as fast as is imaginable.

This was the idea behind **Edge**'s review machine, one of the first on the market to make use of AMD's storming new K6 processor, which was believed might blow away everything on the market bar, perhaps, the much pricier Pentium II. And **Edge** wasn't disappointed, particularly when the processor's performance was backed up by a specification including 32Mb of RAM, a 4Gb hard disk, a 24-speed Matsushita CD-ROM drive, two Universal Serial Bus ports, a Creative Labs AWE64 sound card, a flashy 17-inch Idek monitor and a 64bit ATI 2D graphics card with 2Mb of VRAM.

The machine really came into its own with modern 3D games which would place some stress on a 200MHz MMX Pentium machine, such as *Interstate '76*, *X-Wing Vs Tie Fighter* and *Actua Soccer*. Out of curiosity, **Edge** also tested it with *Microsoft Soccer* (surely one of the slowest PC 3D games ever), and even that was rendered acceptable for the first time in history. DOS games saw a less marked improvement, but most of them have been designed for use on inferior hardware, so this was hardly surprising.

Elonex will supply PCs with 2D/3D graphics cards, but it really is best to add one of these post-purchase, after deciding which particular chip has the games support that appeals to your taste. After adding a VideoLogic Apocalypse 3D card, though, it really is difficult to imagine how a PC could run games any faster. AMD's K6 chip could almost have been designed to power games PCs. Pentium IIs, on the other hand, have been designed quite specifically to run business software, and only really fly with code which has been specifically recompiled (they also run *Windows NT* code much better than *Windows 95* programs). Although the required recompiling job is not difficult, it's not something many games developers will be doing. It must be noted, though, that the Pentium II's floating-point performance is slightly more impressive than that of the K6 – but AMD's MMX implementation is, on paper, slightly better. On balance, **Edge** would have to say that the K6 just has the advantage for running games. If potential buyers feel otherwise, though, Elonex will happily make them an identically specified machine with a Pentium II processor.

AMD K6-based mini-tower PC Elonex, tel: 0181 4524444

Video





Neon Genesis Evangelion: Vol 1

It may be difficult for some British viewers to comprehend, but this truly epic sci-fi series generated a massive following when first shown on Japanese television and then became the biggest-selling animated video of 1996. It has also spawned comic books, hundreds of fan websites and a Saturn game produced in conjunction with Gainax – the legendary Tokyo animation studio responsible for the original series.

So what was all the fuss about? In some respects it is tricky to gauge from the two short episodes presented here, because they're mostly concerned with introducing characters and themes. The plot, as is often the case with anime, begins with apocalypse and the decimation of the human race, this time caused by an asteroid melting a polar icecap. Now Earth is being attacked by huge, sinister beings called Angels who can only be defeated by newly invented bio-mechanical fighting machines known as Evangelions. What separates this from inferior fare, though, is some interesting characterisation, well structured story-telling and an interesting quasi-religious narrative which, like 'Ghost In the Shell', hints at greater themes being explored under the slightly predictable, but still exciting, giant robot battle scenes.

- Directed by Hideaki Anno
- Duration: 60mins
- Published by AD Vision
- £13 (available now)





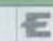
Tokyo Fist

Tsukamoto Shinya is a director obsessed with cyberpunk imagery, most famously with his previous 'Tetsuo' movies. 'Tokyo Fist' is more down to earth, centering around a destructive love triangle between a mild-mannered insurance salesman (Tsuda, played by Shinya himself), his fiancee (Hizuru) and his ex-best friend, a boxer (Takuji). The 'Tetsuo' themes of transformation remain intact, though: as Hizuru begins an affair with Takuji, Tsuda, obsessed and angry, takes up boxing, slowly turning himself into a killing machine. Hizuru, meanwhile, becomes equally obsessed with body-piercing and spends most of the film trying to transform herself into a human colander.

Shot at a frenetic pace, with a thudding industrial soundtrack keeping the pace intact, the movie's structure sees its characters slowly drive each other insane with jealousy and neglect. 'Tokyo Fist' is a nightmarish but fascinating study of decay and obsession.

- Directed by Tsukamoto Shinya
- Duration: 87mins
- Published by Manga Video
- £13 (available now)

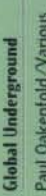
Music



Dance Stance
Love Corporation
Creation



Love Corporation, alongside some of the UK's finest DJs, deliver here a compilation album of 'essential remixes'. The opening track, 'Cathedral of Glitter' (by Monkey Mafia), creates a classical, haunting start which is proceeded by the semi-ambient beats of Danny Rampling and Andy Weatherall ('Palatial' & and 'Give Me Some Love'). Midfield General's 'Beware the Tranquil Trap' is a classic, again with a haunting undertone overlaid with a great breakbeat. 'Palatial (Scuba Mix)', the final track, finishes off the album adequately, rounding up an album that's well worth a listen.



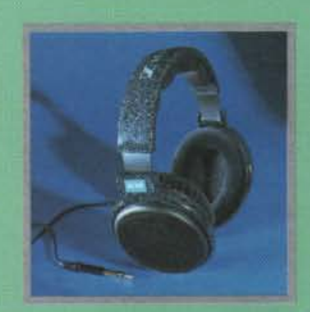
Global Underground
Paul Oakenfold/Various
Boxed



Big-name DJs don't get much bigger than Paul Oakenfold. With his unswerving commitment to the kind of uplifting, pounding melodies that make dance floors erupt, he is one DJ who straddles the divide between the underground and overground with consummate ease. Recorded live in Oslo, this quality double-CD set mixes mellow drum'n'bass with house and trance cuts – many fresh off acetate. However, while straying more than usual from his trance-infused style, this mix is slightly eclipsed by his previous tape-only sets recorded for the Global Underground series.

Gadgets

- HD 600
- Sennheiser
- £250
- Out now



Stereo headphones

Headphones often get a bad rap for sounding, well, pretty poor. The standard pairs that come with typical personal cassette or CD players hardly cut it compared to a decent pair of hi-fi speakers, and so, generally, music fans only listen through them when needs must.

However, the right pair can blow even a top-end MIDI system's speakers out of the window. Sennheiser, which has been making headphones for decades now, has just released its new flagship models – the HD 600s – and these will do nothing short of shock. Huge amounts of bass, cleaned yet crisp treble and a solid, broad midrange belie the source. Going louder than most human ears can stand, this has got to be the definitive voice of headphone technology.

Stereo headphones Sennheiser, tel: 01494 551551

- DVL-9
- Pioneer
- £1,400
- Out now (Japan)





Multi-format disc player

Nowadays, anyone who wants to get into digital home cinema is faced with a tricky choice: buy into Laser Disc (expensive), buy into DVD (if you can find the software), buy into VideoCD (cruddy quality), or wait until Sony gets around to launching a killer-format alternative. Buying into the lot will put three more players under the TV.

No longer true. Pioneer has just launched its multiformat player, the DVL-9, which quadruples up as a DVD player (NTSC format only, though), a Laser Disc player (again, NTSC), a white-book VideoCD player and a spinner of the trusty old audio CD. It really is a bit clever. Plus, the adage 'Jack of all trades, master of none' is entirely inappropriate: everything it can do, it does hugely impressively.

DVL-9 Pioneer, tel: 01753 789789

Books

Big Brother

- Simon Davies
- Pan Books
- £6
- ISBN 0-330-34931-7

Simon Davies is on a crusade. After founding Privacy International, he has been campaigning to bring to public attention issues which affect the privacy of everybody as the information age gains pace. With the prevalence of CCTV in inner cities, for example, the anonymity of the general populace is slipping away. But Davies can even see a day when everyone is tracked via satellite, their digital cash transactions traced and phone calls logged onto a computer for marketing purposes.

Even seemingly benign technological breakthroughs are enough to rile Davies. The introduction of Caller Display and Call Return by BT recently is at first glance innocent enough. Davies, however, delves into its more sinister side which has led to this technology being outlawed in some American states.

So the author may seem paranoid at times, but he does open eyes to the implications of data surveillance technology. Even though western society cherishes its freedoms it is somehow allowing them to slip away. Think you're immune? You're wrong. Right now you are on at least 200 different databases. Keep looking over that shoulder…



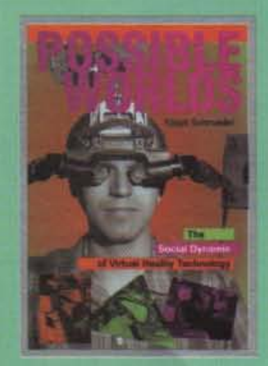
Possible Worlds

- Ralf Schroeder
- Westview Press (Harper Collins)
- £18
- ISBN 0-8133-2955-8

Unlike Howard Reingold in his seminal study of the dawn of VR technology, 'Virtual Reality', Shroeder writes from the perspective of an academic, looking closely at the sociological aspects of VR and its impact on the social dynamic.

Interestingly, but perhaps slightly predictably, he sees VR making its earliest impact in the field of entertainment. Even though the technology is being developed in other areas like architectural visualisation and medicine, he argues, it will only take its first step into mainstream conciousness once it has been employed in something like an affordable home gaming platform – something Sega and Nintendo are no doubt spending millions developing.

Schroeder's writing is a little dry at times, but he has a clear understanding of what has been achieved with VR, and what is yet to come. There may be a time, for example, when people spend years of their lives in virtual environments as part of their work and leisure. VR and humans may even one day be merged to become 'fusion people'. And somehow he makes that sound intellectual rather than kinky. A remarkable acheivement.



Music



Earthlights
Nostramus
Substance



When even the local bank is using jungle as the backbone of its TV jingle, it can be hard for new drum'n'bass acts to stand out from the crowd. Nostramus have no such problems, thanks to an ability to match the rhythms to everything from earthy reggae to sweeping ambient washes to skeletal techno and beyond. And yet 'Earthlights' never suffers from the magpie syndrome that afflicts so many other multi-faceted bands, each track instead working as an organic extension of the band's style to thrilling effect. Nostramus are one outfit deserving of headline status.

Megasoft Office '97
Various
F Communications



The title is, of course, a play on Microsoft's ubiquitous product, and an allusion to the office-friendly nature of this quality collection. Mellow without getting too chilled-out is the theme here, the sounds sourced from lesser-known acts on both sides of the Channel. Ready Made provide the quirky aspect, with a downtempo track encompassing both blues and lounge jazz, while Nova Nova's contribution could almost be left over from a Tori Amos session. Bizarre, perhaps, but such material actually sits well alongside the purer electronic forms here.

Netscape: Welcome to Netscape

Back Forward Home Reload Images Open Print Find Stop





(netview)

Location: http://home.netscape.com/

What's New? | What's Cool? | Handbook | Net Search | Net Directory | Software

EDGE TRAWLS THE INTERNET FOR THE LATEST DEVELOPMENTS IN THE ONLINE GAMING SCENE

Nintendo 64 siteseeing





The Nintendo 64 has produced a wide and loyal fanpage following on the Internet

Like all leading platforms, the N64 has a huge presence on the Net in the form of dedicated websites and fan pages. The difficult thing is rooting out the 10% or so that are run by truly dedicated gamers and therefore provide regular news and Nintendo information worth reading.

The official Nintendo Power Source is perhaps a good place to start. Previews and demo downloads invariably end up here first before being liberally distributed about the rest of the Web by others. In fact, the whole site works more or less as an extended magazine preview section with plenty of screen shots and good solid coverage. Proper news does get the occasional mention (this was the first site to talk about Rare's '*Banjo-Kazooie*' project), and press releases are featured, but updates are not particularly regular and the more negative aspects of the N64 – ie the slippage of the 64DD to March '98 – are curiously left unmentioned.

Which is where sites like Nintendo HQ and Nintendojo come in. Being unofficial, they can, of course, afford to be a little more objective in their coverage and deal with the N64 in a more open-minded way. A recent extended NHQ news piece, for example, talked about Nintendo's poor performance in Japan and suggested ways the company could improve its market position before Christmas. However, for raw news N64.com or Next-Generation.com (both from Imagine publishing) are perhaps better options, presenting the continually updated facts in clear and (mostly) authoritative text.

Accompanying NHQ and Nintendojo's news coverage, though, is a wealth of features which make each site feel much more as though they are run by people who love the N64. NHQ, for example, features enthusiastic editorials with titles like 'If I was a games designer', and there is a much more global feel here (the site boasts a regular news slot from Japan and even gives advice to UK consumers on where to buy imported N64s). The fanzine approach can grate at times, though – whoever thought that readers' N64-related poems would make good reading must be regretting their idea already...

Four of the most popular N64 sites: **Nintendo Power Source** – http://www.nintendo.com • **N64HQ** – http://wwwn64hq.com • **N64.com** – http://n64.com • **Nintendojo** – http://members.aol.com/peers2/enter.htm

A bulging football Net

Publishers releasing football games nowadays have to be confident their product can go head to head against some very stiff competition in what is currently a severely overcrowded market. Sunsoft is such a publisher.

After a prolonged absence from Europe, the Japanese firm is re-entering the videogame scene convinced that it has a contender strong enough to take on the opposition.

PC title *Soccer Nation*, the result of a claimed 30 man-years of development from Newbury-based developer Crush!, promises to be the first football simulation to offer both detailed management and advanced arcade-style play. The emphasis is on creating a game that will meet the demands of the most dedicated of football fan, and as a result every option present in the game can be meticulously modified.

However, realising the potential of online gaming for such a title, Crush! has gone one further than its competitors and included this option in its forthcoming product.

As a result, *Soccer Nation*'s potential is massive. Players will be able to pick a team from a selection of over 2.5 million virtual players, all with their individual personalities; design their own kit from 500,000 design possibilities; and build their own stadium from the 8.5 million combinations offered. Then they will be able to train their squad in order to participate in friendly matches against any players willing to take them on. Furthermore, Crush! will have regional leagues organised by the end of the year, with the promise of national and international cups to follow.

Additionally, *Soccer Nation* will feature an international transfer market for players wishing to buy particular team members in an attempt to improve their squad's chances. Characteristics of the required player can be uploaded, along with budget restrictions, and the Crush! server will provide a list of players available. Negotiations are then up to the individuals concerned.

Anally rentenitve *Soccer Nation* players can also download other players' matches and study them for tactics in the hope of discovering a weakness in their defence. And if that doesn't work, it's even possible to taunt the opposition into making a mistake by sending one of the sampled abusive chants provided down the line...

Soccer Nation looks like a promising title and one that could take online gaming into a new era, partly because of its universally popular subject matter. Armchair football fans might well find themselves spending far more time in front of PC monitors rather than televisions when the game is released in August...



***Soccer Nation*'s options are impressive, with players being able to design and build their own stadiums from 8.5 million combinations**

Soccer Nation will be published by Sunsoft for the PC in August. In the meantime, developer Crush! can be visited on the Internet at: http://www.crush.co.uk

BIG IN JAPAN

- THIS MONTH...
- TV TAMAGOTCHI
- DRUGGIE GAMES
- VIRTUAL GIRLS

THIS MONTH IN EDGE'S DISPATCHES FROM THE JAPANESE INTERACTIVE ENTERTAINMENT FRONTLINE... A NEW ADDITION TO THE 'VIRTUAL PETS' MENAGERIE... DRUG CULTURE MEETS GAME CULTURE IN *LSD*... 'VIRTUAL PRESENTER' LAURA HITS THE SMALL SCREEN – HAVE RICHARD AND JUDY MET THEIR MATCH?

Animal magic

Given the huge success of Bandai's Tamagotchi, it was inevitable that SCE would get in on the 'virtual pet' act eventually. The result is PlayStation title *Gambare Morikakun 2*, in which players look after a strange half-robot, half-insect hybrid who lives in a colourful 3D world. To advertise the game, SCE has developed two commercials which easily compete with most Japanese ads for irreverent weirdness. The first has a dog, a fish and a parrot glaring jealously at Morikakun, 'the pet in the TV'. The other has a group of mothers meeting in the park, each pushing a pram with a TV set in it showing the Morikakun on-screen. After they make comments to each other like 'yours is very cute – he looks like his parents', a voiceover announces: 'Morikakun: the pet you can raise in the TV'. Let's just hope no one tries to give it a bath...

Acid test for Asmik

Having already extensively explored themes of sex and violence, the software industry is on the verge of tackling the last bastion of conservative morality: drugs. Japanese developer Asmik is currently working on a game entitled *LSD* – or *Link Speed Dream*, to give it its full moniker – which is being described by its creators as a 'walking dream simulator'. Here, the, ahem, 'user' has to wander through several levels of a strange, psychedelic world and, judging by the screenshots **Edge** has got hold of, watch sumo wrestlers going at it in rainbow-coloured rings.

Although the company denies on its Web site that the game has narcotic connotations ('It is not like taking some acid and going on to the next stage. Acid is illegal, even for adults,' reads one paragraph), this is probably just a half-hearted attempt to put would-be censors off the trail. Whether Asmik fools the notoriously conservative SCE is another matter. In all probability, the company will probably never release the game anyway – it will just imagine it has and then get paranoid when no one buys it.

Digital dreamgirl

Japan's fascination with computer-generated women (highlighted in **Edge**'s profile of rendered pop star Kyoko Date, **E**38) continues with Laura – the virtual TV presenter. Laura was orginally created by Warp for its much hyped interactive movie *The D*. Now, though, she's presenting 'Digital Chat', a ten-minute, twice-weekly show covering movies, games and various other subjects. In terms of animation quality, Laura is not quite as impressive here as she was in *The D* – she only makes a few basic movements throughout the programme and is mostly viewed in portrait. However, Warp boss Kenji Eno is certainly getting closer to his ultimate aim of creating an all-round virtual actress – Laura is now set to star in a feature film version of the Saturn game *Enemy Zero* which is due for a Japanese release in July. **E**

Edge's survey of vital videogame statistics from the Land of the Rising Sun confirm the pre-eminence of PlayStation, while *Zelda 64* looks set to sweep the board when it is released at the end of the year

The market in figures

Installed bases of consoles in Japan (to end of March, 1997)
- PlayStation: 6,500,000
- Saturn: 4,800,000
- Nintendo 64: 2,040,000
- Super Famicom: 16,870,000
- Game Boy: 15,020,000
- PC-FX: 270,000
- 3DO: 750,000
- Neo-Geo: 700,000

Console sales forecasts for the end of 1997 (according to manufacturers and retailers)
- PlayStation: 8,160,000 (manufacturers); 9,080,000 (retailers)
- Saturn: 5,900,000 (manufacturers); 6,020,000 (retailers)
- Nintendo 64: 3,960,000 (manufacturers); 3,720,000 (retailers)

Most-awaited titles according to manufacturers
1. *Zelda 64*
2. *Biohazard 2*
3. *Derby Stallion*
4. *Final Fantasy Tactics*
5. *Saga Frontier*
6. *Tekken 3*
7. *Pocket Monster 2*
8. *Super Robot Taisen F*
9. *Virtua Fighter 3*
10. *Biohazard* (Saturn)

Most-awaited titles according to retailers
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4. *Pocket Monster 2*
5. *Saga Frontier*
6. *Virtua Fighter 3*
7. *Tekken 3*
8. *Super Robot Taisen F*
9. *Zelda 64*
10. *Tokimeki Memorial 2*

Source: **Famitsu Express**

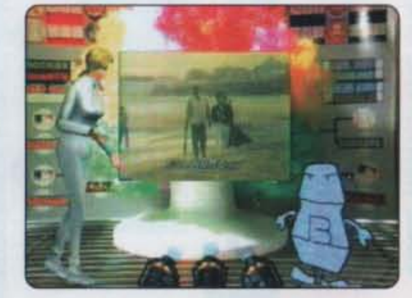



The TV commercials for SCE's contribution to the 'virtual pet' craze spawned by Tamagotchi feature the usual quotient of Japanese surreality





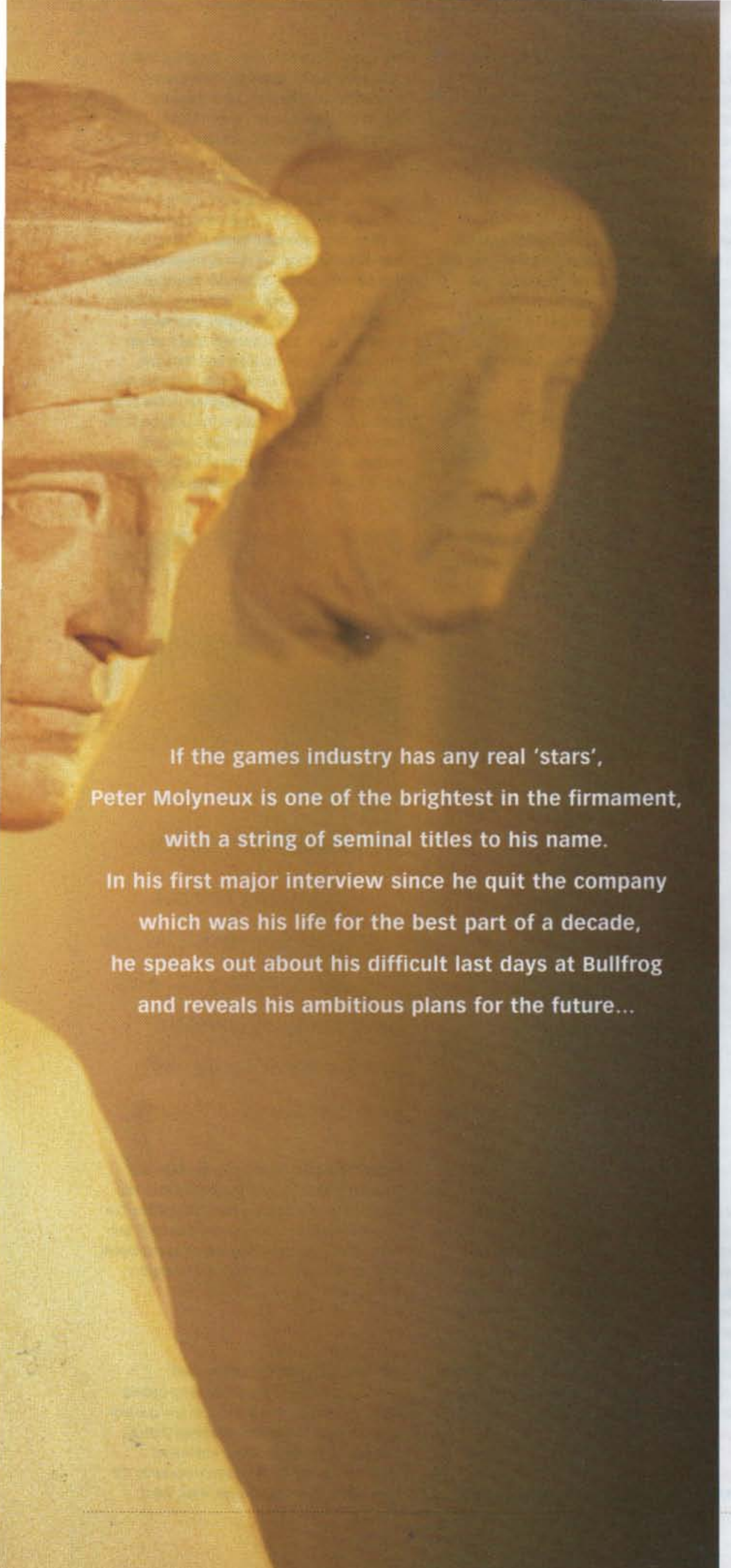
Asmik's odd *LSD* project is described as a 'walking dream simulator'. The company denies that any hallucinogenic references are intended or implied...




'Virtual presenter' Laura is the frontwoman for new Japanese television programme 'Digital Chat'

AN AUDIENCE WITH...

Peter Molyneux



Last year, **Peter Molyneux** made the decision to quit Bullfrog, the company he founded in 1987. It was at Bullfrog that he created *Populous* – the harbinger of a whole new genre – and where he honed that genre to perfection with titles like *Power Monger*, *Populous 2* and *Theme Hospital*. But when the company was sold to EA in 1995, he found the endless corporate meetings and management responsibilities suffocating and handed in his notice, leaving behind a few angry people and a glorious swan song: *Dungeon Keeper*.

Now he has a new company, Redeye Studios, and a new game design to work on. But how will this return to small-scale development work out? And what is the truth behind his decision to leave the company he created? **Edge** met up with the man himself to discover the answers...

Edge: When did you actually make the decision to leave Bullfrog?

PM: It was around July of 1996. I was sitting up in my office and I decided that this just wasn't going to work, but I was desperately torn between staying and going and was debating how to handle it properly if I did go. At the time, I thought the best thing I could do was to contact the president of Electronic Arts and tell him that I planned to leave – not leave, but planned to leave – after *Dungeon Keeper* had been completed.

Now, that turned out not to be the best decision of my career. What I should have done is a slightly meaner thing – I shouldn't have said anything, I should have carried on and then, when *Dungeon Keeper* was in the shops, I should have said, 'Here is a month's notice, cheerio.' That would have been a slightly better decision on my part, perhaps, but I wanted to give Bullfrog plenty of time to find someone else to replace me and to get used to me not being around.

As it turned out, rather unfortunately, what Electronics Arts wanted me to do after I told them that I was leaving was to concentrate on *Dungeon Keeper* and not get involved at all in any of the other Bullfrog management stuff. This was very hard for me to do, and very hard for Bullfrog, because suddenly there was a steel wall between me and Bullfrog where certain people thought that if I was talking to anyone at Bullfrog I was poaching them for the new company. I never had any intention of doing that – I had just got to a very uncomfortable situation, really, where there was me working on *Dungeon Keeper* and the rest of the team working on *Dungeon Keeper* and then there was Bullfrog. The two didn't really come together terribly well.

Edge: Did your decision to leave generate any ill feeling in the company?

PM: It was certainly very, very tense, because understandably – well, I guess understandably – people thought I had just made this announcement to make their lives difficult. I hadn't – I made the announcement because I wanted to give Bullfrog masses of time to extract me from it. I think, in retrospect, that it was unfortunate to build this brick wall between me and Bullfrog, and I wouldn't have wanted it like that. I would have wanted to try and encourage some people to take over, because whatever happens, I still feel very much for Bullfrog – I will never, never be able to take that away. Bullfrog

was so much a part of my life that you can't just suddenly say I have no emotions about it. I will always have emotions about it.

But there was this feeling of, well, you know, what agenda is Peter working to? And people just built up these ridiculous fears about me poaching people, and about me making these deals with other companies – none of which was true. All I wanted to do was to finish off *Dungeon Keeper* and to make it the best possible game I could, because it was the last game I was doing for Bullfrog. I was, in fact, absolutely focused on *Dungeon Keeper* to the point that everything else in my life was shoved to the back burner for a while.

Edge: There were obviously a lot of other games in development while you were working on *Dungeon Keeper* – *Syndicate Wars*, for example. How much involvement did you have with those other games, or were you kept away from them as well?

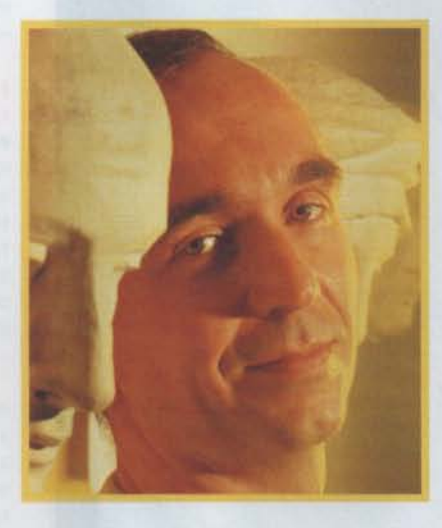
PM: Well, yeah, that was the unfortunate thing. Here I was looking at *Gene Wars* and *Syndicate Wars*, not on a daily basis but, you know, on a sort of a weekly or two-weekly basis, and

I think the trouble with the studio model at the moment is the big umbrella of development that a lot of the larger publishers have. The problem with it is that it is vastly expensive and it does encourage people to be pissed off with it because they can't change things – you are just a cog in the wheel.

Inevitably, when people get pissed off they look round and they see other developers making an awful lot of money, deciding on their own destiny, deciding where they are going, and they think, 'Why the hell am I bothering to do this?' I think there has been a lot of that happening, and there's going to be an awful lot more of that happening. But what people must realise is that it's tough – it's very hard to run

and I have to say I am hugely delighted that it wasn't successful, because I think the way it went about business was particularly bad. In fact, in *Dungeon Keeper* I've got a little dedication to Scavenger – there is one bit of the game design which was inspired by the way they got their staff. I said at the time, it is inevitable that those people are going to have problems. What they did was, they went round to every major software house and they just said anything to get the best developers from that software house. Scavenger promised them the earth and then the sun and it lied. All these people had perfectly good jobs, they were perfectly happy, but Scavenger said it would give them fabulous royalties and their own destinies and it was all complete and utter lies. The company lied to the publishers, it lied to the people it worked for, it lied to the public and the results were obvious. Scavenger collapsed because it couldn't live up to all these lies it put out. It made an awful lot of people very, very





'It's very hard to run your own development house. Everything is sweetness and light until you release that first game. Then, if that's not a super mega hit, no one will talk to you. And how many successful games were there last year? Perhaps a handful'

helping the teams along – which is a difficult thing to do anyway. But then, suddenly, I wasn't involved. Full stop. There was no other input. This was really frustrating, because to be honest I would not have released *Gene Wars* in the state it was in. I would not have released *Syndicate Wars* – I think it was technically excellent but it was simply too hard to play. I just would not have released them – I would have carried on developing them. I know that it is really unpopular not to release things on time, but I think *Dungeon Keeper* will prove that it is worth taking that extra effort to complete the game. That was the most frustrating thing of all because I quite simply wasn't allowed to comment on those titles.

Edge: Did you have much contact with the other famous names in the business who were all thinking of getting out of their various corporate situations at the same time as you? Did you all just meet up in the pub and say, 'This corporate stuff is crap, let's get out?'

PM: Well, yes. The thing is, the way this industry works is that you never say, 'It's crap,' you always say, 'Wouldn't it be better if...' We have a much more diplomatic way of doing things!

your own company, or your own development house. Everything is always sweetness and light until you release that first game. Then, if that's not a super mega hit, no one will talk to you. Up to that point everyone will talk to you.

Yeah, there have been a lot of people, you know, people from John Romero down to a few English developers, who have been around for years and years, and they are all thinking of going off and setting up their own groups and doing their own thing. I do start to wonder where all these games are going to go and who's going to publish them all, because I know of 20 new startup development groups, all of which have the same ideals, all of which are saying exactly what I'm saying, which is that they are going to produce the best games, the most original games, the best technical games... And you just think, well, how many successful games were there last year? Perhaps a handful. And all of these new startup groups have to develop those. It's going to be tough.

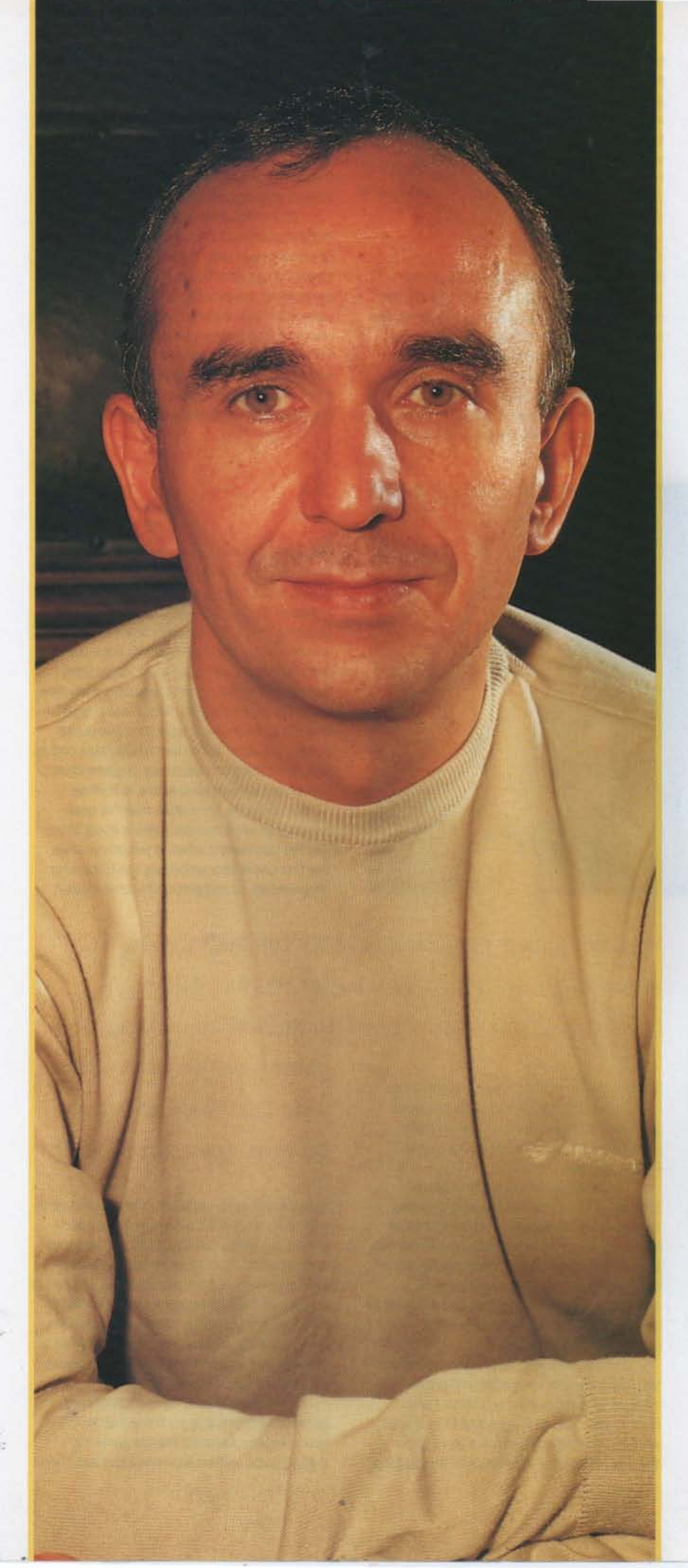
Edge: What do you think about what happened to Scavenger and that whole dream that went sour? Did you follow the situation quite closely?

PM: Yes, yes, I followed the Scavenger thing

pissed off indeed. So I have to say that I am quite delighted that it hit the tough times. Not delighted for the people who worked there, but for the people who took the decision to go out there and be so aggressive and be so motivated to do an awful lot of damage to the industry.

Edge: One of Scavenger's specialities was announcing games that subsequently failed to ever come out. So what happened with Bullfrog's *Creation*?

PM: Well, yes... What happened with *Creation*... Well, there is a little story behind *Creation*. *Creation* has actually, in one guise or another, been in development since Bullfrog started – originally *Populous* was called *Creation*. We had this tradition in-house to call every game, every special game we were



working on, *Creation*. So *Populous* was called *Creation*, and *Power Monger* was called *Creation*. And then – this is pre-*Magic Carpet*, just after *Syndicate Wars* – *Creation* was started in earnest.

The way it all worked with *Creation* was that Glen [Corpes] came up with this engine which looked something like *Magic Carpet*, but it wasn't tremendously fast at that time. So I said, set it under water and then slowness doesn't matter so much because, you know, you're lagged. Then I came up with this game design where we had these eight cities which all grew and expanded under water and you were all competing for resources. Which was fine, but then of course *Magic Carpet* came around and eclipsed *Creation* and then *Creation* got bumped a little bit.

Anyway, to cut a long story short, it seemed to have been on our books under 'development' for absolutely years. When you looked at it, when you looked at our plan, *Creation* had been there since 1990. Well, of course, it wasn't true – it hadn't been there in 1990 because it wasn't the same game. But, erm, I think what happened is that a lot of people preferred the fact that Bullfrog concentrated on trying to be diplomatic, concentrated on products which they knew were going to be successful. So they preferred us to focus on *Populous 3* rather than the unknown quantity of *Creation*. I think it is hugely sad that it was killed – I think it could have been a really good game. A lot of people in the industry have been inspired by the idea of *Creation* and have produced games based on that, which is fine. I think that's great. But I think it's a real shame that it was killed, because it could have been something very impressive.

Edge: It could perhaps have been something so different and new that it would have created a new genre, which is something gamers are expecting to arrive soon. But can there ever be any new genres, or is this industry turning into the film industry, with only certain types of product making it into production and no one willing to experiment?

PM: I think there are new genres coming along all the time. I've seen games fairly recently which I would call a new genre, in that the pigeonholes we created for computer games just do not fit any more. I mean, *Doom* or *Wolfenstein* or *Quake* can be thought of as representing a new genre, but equally, they could be slotted into the action genre or the shoot 'em up genre or the arcade genre. What we're doing is mixing and matching genres.

I think that 3D is still in its infancy and what we need to do now is to match 3D with gameplay. A lot of people have said that, but it does mean an awful lot more work being spent on things like AI and getting environments right and getting ingame characters to fully use environments, the environments which we can set up in 3D worlds now. As we get more and more realistic, it's necessary to create environments that really work for the player and have gameplay which is tuned more towards the gamer rather than the other way round.

So I think it's all in its absolute infancy, and in five years' time – probably less than that – we won't be asking who's got the best engine and

who's got the fastest engine, or the greatest number of polygons, or who's got the most beautiful engine. That will all be done by hardware. What we will be asking is how intelligent are the characters? How good is the gameplay? And that's the way it should be.

Edge: So how will your ideas on 3D environments and artificial intelligence be employed at Redeye?

PM: Well, the first thing I concentrated on at Redeye was the game design. It takes me a long time to think of a game because what I do is I hold it in my head and play around with the idea in my head before doing anything. What I'm going to be doing is concentrating an awful lot on AI and on gameplay, but also marrying that with some really, really nice 3D stuff. If you look at *Dungeon Keeper*, the amount of AI that's in there is truly astounding, but I reckon with the new game I'm probably taking that ambition ten times further. So it's a very, very ambitious project, and I've got some really, really clever people from the University of Cambridge – a couple of top firsts – to help me on the AI because it's getting just a little bit too much for me to handle.

So my first ambition is once again to create something that I'd like to describe as truly original. I'd like to attempt to do something that hasn't been done before in computer games – I can't go into too many details – and marry that with the most ambitious 3D that I can possibly do. We're going to be supporting a lot of the new hardware that's coming out on the PC, and the ambition is to make the game environment as beautiful as it possibly can be and to combine that with gameplay which simply hasn't been attempted yet.

Edge: So are you looking at a whole new way of developing games?

PM: I think the technique of writing the game is going to be the same. That technique is to produce a testbed first, which is completely graphically crap, and then apply all the gameplay and AI theories to that while the engine is being worked on and while the art is being drawn. Otherwise, if you do it the other way around and try and run the two things together, it just doesn't work – there is just too much work to do on the AI and stuff. So the production of the testbed is going to come first while the graphics are being drawn. That technique has proved about right for me. It was what I used back in the original *Populous*.

Edge: So you have these two chaps from Cambridge coming along with their firsts and their knowledge of artificial intelligence, but who else is in the company, and what are their specific skills?

PM: Well, there's Mark Webley, who is my brother-in-law and one of my best friends, and he's setting up the company with me along with someone called Tim Rance and Steve Jackson. I'll go through those sequentially...

Mark Webley was the project leader on *Theme Hospital* for Bullfrog. He is one of the best people in the industry. When he joined Bullfrog, he didn't know anything about the games industry but he proved himself to be creative and hugely talented, and he's quite good at keeping me on time, which I'm not particularly good at. So I am working very closely with him.

There's also someone called Steve Jackson, who was co-founder of a company called Games Workshop, which produced all those role-playing boardgames back in the '80s. He was one of the biggest games designers in the country, but what he hasn't done is designed any computer games, so I am going to be working with him, using some of his expertise in games design.

Then there's Tim Rance, who comes from the City and has been specialising in the creation of libraries and tools. What I don't want to get involved in and what Mark doesn't want to get involved in either is working on the gubbins and the mechanics of the machine. We want Tim to specialise in that so we get the best out of the machine.

There's also someone called Demis Hassabis, who worked with me on the original *Theme Park*. He left Bullfrog about two years ago to complete a degree and he's just finishing that now, so he's going to be coming back to Redeye and working on the new game.

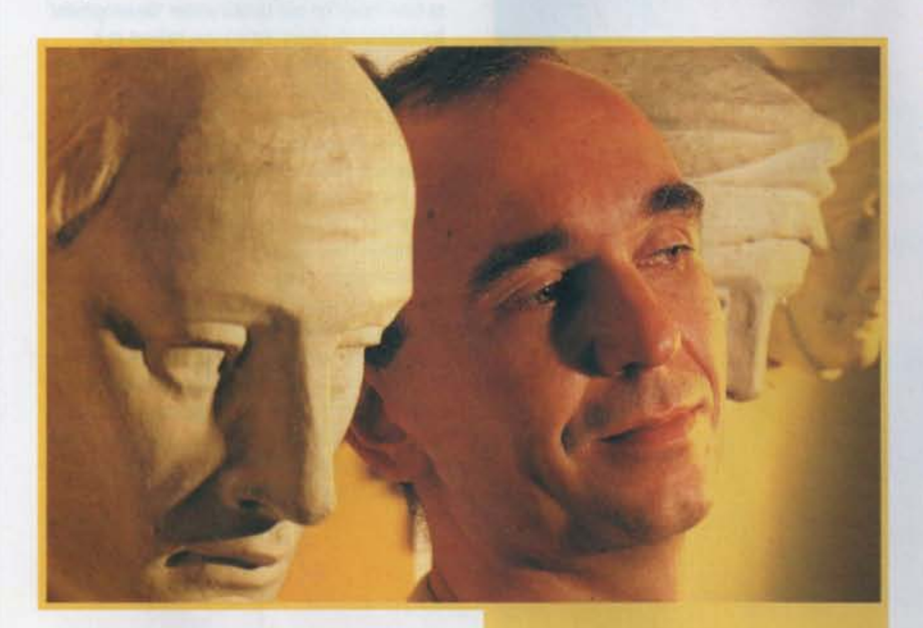
So there is quite a lot of expertise already in the company. Consequently, we've had a sort of running start, with a really nice mix of skills. There's Steve, who brings a different perspective to the design. There's Demis, who is one of the most talented people I have ever met. And there's Mark, who I have worked with for years. Plus, I can't give you the names but we've got artists already lined up. So the whole team, all 20 people, are just going to be focusing completely and absolutely on that first game.

Edge: At the moment, the industry seems to be asking, 'Well, if Peter Molyneux goes, where is Bullfrog going to get its big game ideas? Did you hold any ideas back after you decided you were going to go, and if so, was it quite difficult not to let on?

PM: Well, because I was concentrating on *Dungeon Keeper*, I didn't have an awful lot of time to write down any new game designs. However, Bullfrog has got a lot of my designs knocking around – *Indestructibles*, for example, was one which should have been done but unfortunately it was going to be led by Sean Cooper and he left. I think that was a really nice game idea – they might undertake that again. I also did a massively multiplayer game design called *Panorama*, which was a really nice one as well. So I think there are about 15 game ideas sort of jotted down somewhere at Bullfrog.

But obviously, for a while now I've been focusing on what my next game is going to be, and I've narrowed it down to two game ideas. The first one is very ambitious, really focusing on gameplay, AI and getting the environment right using those techniques. The second one is a bit of a surprise. It's a console game – very simple, but really, really focused and balanced and totally, totally original in that I had never seen anything like it before. What I've decided to do is go for the first option, which is a little bit more dangerous, really, because it is such an ambitious project. What we are striving to do is going to take an awful lot of computing power, but I think it's going to pay off.

As I've already said, the most important game I'll be creating is my first game for this new company. I wanted the last game for Bullfrog to be brilliant and to sell well and I hope

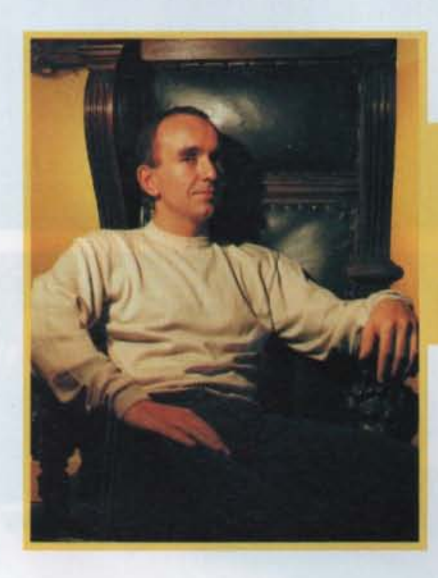


'Redeye's new game is probably ten times more ambitious than *Dungeon Keeper*. I'd like to do something that hasn't been done before in computer games and to marry that with the most ambitious 3D that I can possibly do'

people agree that it is quite good, but I really want the best game that I have done in my life to be the first game for Redeye.

Edge: You're not going to like this question, but when are we going to see this game?

PM: Right, well, you're going to see the game when it's ready, is the answer. One thing that the last two-and-a-half years has proved is that it's utterly pointless asking me when I'm going to be finished, because the last person in the world who knows when I'm going to be finished is me. The way that I work – and the only way I work – is to keep on trying out an idea until it works and keeping on playing an idea until it works. A lot of people have said to me, 'What's the secret of your games design?' and it's really very simple. I'm not clever, I'm not brilliant – I'm boring, actually. All I do is take an idea and just play it a million, million times. I must have played *Dungeon Keeper* for tens of thousands of hours. I must have played *Populous* for a similar amount of time. And that's the only secret: you just play it and if at the end of it you're not bored with the game, then you know it's right. Okay, the original concept is important, but it's not nearly as important as whether, when you are able to play the game, you actually enjoy it. And if you can turn around and say, 'Yeah, that is a game that I would play,' then you know it's ready to release. So it's impossible to give a



time. However, I'd be disappointed if it took longer than two years.

Edge: You mentioned a console game there, and it's quite interesting what's going on in the console world at the moment. The Saturn's dying out, there's talk of Saturn 2 already, the PlayStation has done tremendously well but it's probably in a sort of mid-life sort of area now, the N64 isn't selling so well any more but its technology remains exciting... Which console would be the best for your game and which console do you like the most?

PM: I think it was inevitable that the PlayStation would win the fight against the Saturn. Sony are big players, they've got big bucks and they designed a good machine which was well engineered and cheap to produce so the consumers would buy it. Technically, it's a fine console – you can go inside it enough and fiddle around with it enough to mean that we haven't seen the best games on the PlayStation yet. The N64 is far superior to it but has a number of drawbacks. You're going to see some stunning games on the PlayStation because everyone is starting to focus on it.

However, I think that the Nintendo 64 has got a number of real advantages to it. The first is that Nintendo cleverly decided to design a joypad which was slightly different to other people's joypads. They paid the price initially, and the price was that people weren't used to using this little analogue... nipple, as I call it. They were more used to using the conventional joypad. But that risk will pay off in the end because with that analogue stick, you can actually design games that you are not able to do on a PlayStation.

So, the technical expertise of the Nintendo 64, plus its new, lower, price, plus the fact that it's got some joypad innovation, means that there is going to be some really interesting stuff coming up on the machine. You are going to be seeing some stunning, stunning games. I think we need a little bit more hardware first, though. The cartridge simply isn't big enough to do some of the more ambitious projects that everyone is attempting now. They need some sort of DVD or CD or whatever Nintendo is going to decide on, and providing the price is kept low and providing that software of quality gets out there, I think the Nintendo 64 is going to take on the PlayStation. Not this year perhaps, but certainly next year, when you get a few titles out there.

And then you've basically got a two-horse race. It's not worth considering M2. I don't think M2 will ever come to anything, really. I'd be surprised if it does, anyway. As far as the Saturn 2 is concerned, it worries me massively. They've got to go so much further than the N64 and the PlayStation in terms of the hardware; they've got to be low on price and they've got to attract developers. It's really hard to imagine how that's going to happen. But the next two years are going to be interesting.

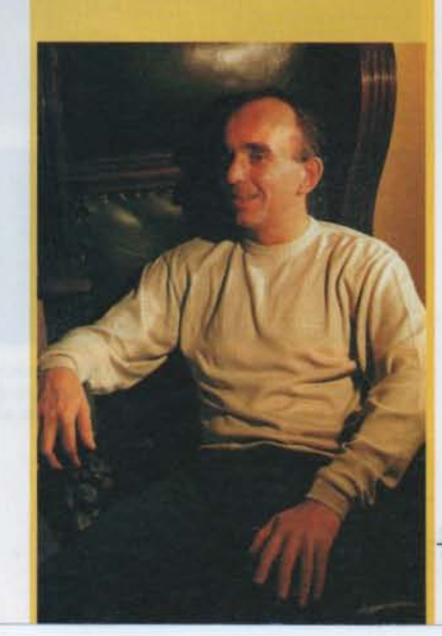
Edge: Away from the console gaming sector, 3D accelerator cards are bringing PC graphics up to a level where they can compete with those of the Nintendo 64. What is your experience with them to date? How impressed have you been?

PM: I think that PC 3D cards are the future for games. What makes me absolutely sick to the back teeth is using all the power of the Pentium processor just to pump polygons onto the screen. The amount of times I've thought, 'Oh goodness, my game is slowing down because it's putting these stupid polygons on the screen. Surely there's a chip out there that can just do it all for me?' Well, now I can do that. Now I can put all that stuff on a graphics card, which frees up something like 70% of the processor's time for me to do anything I want in terms of gameplay, so it's massively exciting. One thing you can be sure of is that I'll be supporting the graphics cards.

Edge: Where would you like Redeye to be in three or four years' time, and what kind of game design/studio management philosophy would you like the company to develop?

PM: My absolute ambition for Redeye is to make it a world-renowned software development house – known in Europe, Japan and America for top-quality games. I would not release a game unless I felt it absolutely had a chance of getting into the very top slot. That's a number-one objective for me. To do that, I think we have to concentrate on producing unique, original and high-quality games, games that aren't being worked on by other people. That's going to be a really tough thing to do, but I'm absolutely convinced that we can get there. There is a lot of hard work to be done before then, but I want to make sure that Redeye is considered to be one of the top three developers within three to four years. After that, looking five years ahead, I would like to aim to be the number-one developer. I think some people would put Bullfrog among the top three, which makes me incredibly proud. Some people would even call it number one. I'd like to achieve that again with Redeye and, if possible, to go a little further. E

'I want to make sure that Redeye is considered one of the top three developers within three to five years. After that, looking five years ahead, I would like to aim to be the number-one developer. I think some people would put Bullfrog among the top three, which makes me incredibly proud'



Prescreen Alphas

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Id co-founder John Romero will be unveiling his first game under new label, Ion Storm, at the E3 show in Atlanta this month. The game, entitled ***Daikatana***, uses the *Quake* technology under licence from id (whose programmers are currently in the midst of *Quake 2*). These early work-in-progress shots provide an inkling of just how ambitious this game will be. The quality of the engine and the detail of the environments are already well ahead of the pack, even before hardware acceleration. Romero has already expressed support for the ubiquitous 3Dfx chipset to power the game in animating creature models that boast as many as 500 polygons each (*Quake*'s consist of only 150).

The game takes place across a series of historical time periods, beginning in ancient Greece, then Norway during the Dark Ages and moving eventually to a near-future San Francisco. Throughout the game, the player is joined by two other characters who talk and interact independently with their surroundings – just one of the features that sets *Daikatana* apart from Romero's previous efforts, *Doom* and *Quake*. The game isn't due out until November, but an early preview can be found on this month's **Edge** CD for those who simply can't wait.

Parasite Eve was originally a novel that was subsequently turned into a movie, released in Japan last year, and now Square Soft, quick to spot the potential of such a title, is converting it to the PlayStation. It is thought to be a project far more ambitious than *Final Fantasy VII*, and Square is certainly taking things seriously by employing Hollywood CGI artists and appointing them to oversee the graphics side of the proceedings. In charge of the scenarios is Takashi Tokita, who worked on *FFIV*, *Chrono Trigger* and contributed to *Final Fantasy VII*. The game is being developed by Square in the US but the well-known Hironobu Sakaguchi will remain as executive producer. The action will take place in New York and will feature a young blond-haired detective as the game's heroine.

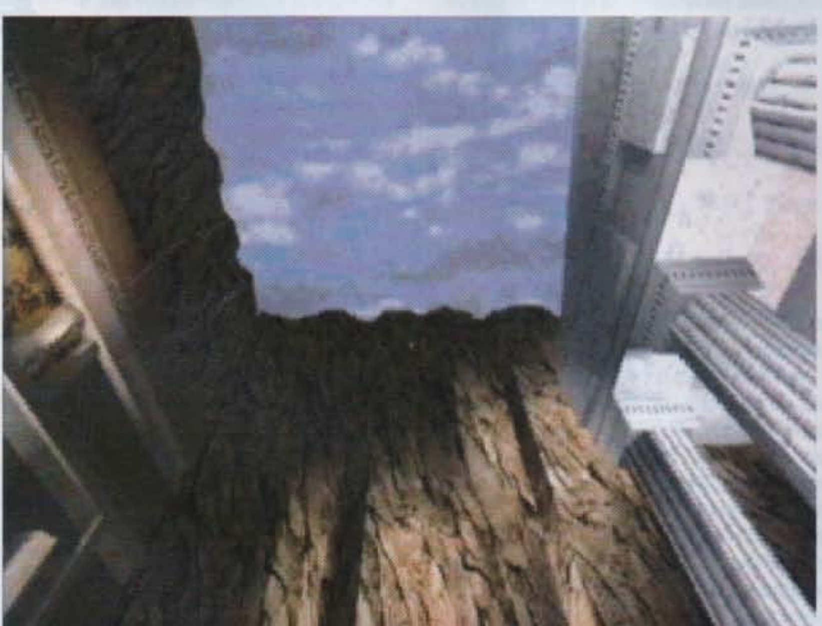
The big news for Japanese RPG fans this summer is the ▶













John Romero will unveil *Daikatana* at the E3 show in Atlanta, Georgia. It has already aroused as much interest as id's forthcoming *Quake 2*





Daikatana is set in three distinct time periods, ranging from Ancient Greece to San Francisco in 2030. The *Quake* 3D engine affords such special features as collapsible scenery (above) and realtime lighting effects, such as shadowing





Daikatana promises a wider variety of environments than its ancestor, *Quake*. It's not the same engine as *Quake 2* (id is keeping that one to itself), but it is a generational leap ahead of the original *Quake* technology, which didn't have the realtime dynamic lighting effects seen here















Square Soft's *Paradise Eve* is looking impressive with an astonishing level of graphical detail. It could mark the company's next PlayStation success

These impressive early renders are from Square Soft's first move into coin-op territory, *Chocobo de Battle*

release of ***Final Fantasy Tactics***, a strategy RPG featuring *Final Fantasy* characters. The game includes the 'job' feature similar to that seen in *Dragon Quest III*, whereby players can allocate an occupation to their character from a choice of 20 professions. According to Square, the often-tedious aspects of simulation games have been eliminated in an attempt to attract players who have previously been reluctant to play this type of game. The game currently looks like it retains Square's legendary graphical excellence.

Chocobo de Battle, a distinctive new beat 'em up from Square Soft USA, is currently being developed on an Onyx Infinite Reality workstation. The pedigree behind the title is certainly impressive – movie CGI specialists Paul Ashdown ('Jurassic Park') and Ron Sabatino ('Batman Forever') have teamed up with ex-AM3 employees Yoshiro Akata (*Last Bronx*, *Funky Head Boxer*) and Go Kikuchi (*Last Bronx*, *AS1 Megalopolis*) to create the game. The Onyx IR can handle a staggering 10 million polys/sec, although the target platform, a coin-op of an as-yet-unspecified spec, will 'only' be able to cope with 1 million. A release date for the game, which will be Square's first endeavour in the highly competitive arcade market, has yet to be finalised.

Square continues its diversification into other areas of videogaming and has recently announced ***Einhander***, a new shoot 'em up game for the PlayStation. *Einhander* replaces *Zauver*, the company's originally announced shooter, and is a polygon-based horizontally scrolling affair. The game differs from other shoot 'em ups by introducing the concept of the 'Gun Snatcher', a mechanical arm located underneath the Endmion (the player's ship) which can be used to collect up to ten enemy weapons, allowing them to be used as power-ups. No release date has yet been announced.

Seeking to give a new strategic slant to the *Zaxxon*-style isometric shoot-em up is ***The Reap***, a PC sequel to ▶



Square's horizontally scrolling shoot 'em up, *Einhander* (above), represents a first for a company which has only recently ventured into areas other than the RPG scene







These screenshots are taken from *Final Fantasy Tactics* for the PlayStation, which will feature characters from Square Soft's *Final Fantasy* series as well as maintaining the company's usual accomplished graphical appearance within the RPG realm









Shoot 'em ups have been poorly represented on the PC to date, but *The Reap* (above), from Finnish developer Bloodhound, aims to change that. The title's beautiful rendered backgrounds and varied attack forces are accompanied by a new level of strategic gameplay and enemy intelligence

the Amiga showcase, *Super Stardust*. Here players (up to eight can take part) must pilot upgradeable fighter craft and clear Earth of humans to make way for an alien colony. For each kill made, pilots earn money which can be traded in at the end of each level for better weapons. Along with stunning rendered graphics, the game boasts a high level of AI which adapts incoming attack waves to reflect the player's own tactics. A huge array of special effects and light-sourcing techniques complete the package, which should provide a much-needed fix to shoot 'em up fans sick of firstperson-viewed *Quake* copies.

Based upon a series of books of fantasy author, Robert Jordan, ***Wheel of Time***, from Epic Megagames, will use its *Unreal* 3D engine. Each player takes control of a citadel and must kit it out with traps and guards to deter the opposition and prevent them from capturing the flag (or, in this case, a sacred seal). No release date has been set.

With *X-COM 3*'s move into realtime, many thought the turn-based military sim was dead and buried. They were wrong. Bluebyte Software has just announced it is developing a fourth chapter in its popular *Battle Isle* series which will retain the old system. In this episode, subtitled ***Incubation***, the player commands a group of space marines who must save peaceful human settlers from a planet's marauding indigenous population. Visually, the game retains the isometric layout of its predecessors, but now employs a true 3D engine, allowing the player to switch between different camera angles – it's even



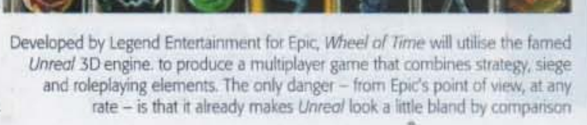
Probe's *Fantastic Four* is set to bring Marvel heroics to the PlayStation





Blue Byte's *Battle Isle 4* (right) is well underway at the company's studios in Germany. The previous games, which have all been turn-based, were SVGA isometric affairs, but this time the team has embraced 3D. Using the same engine as *Extreme Assault*, the game allows players to view the action from any perspective, including a first-person a *Quake*-style 'soldier's eye' view







Developed by Legend Entertainment for Epic, *Wheel of Time* will utilise the famed *Unreal* 3D engine. to produce a multiplayer game that combines strategy, siege and roleplaying elements. The only danger – from Epic's point of view, at any rate – is that it already makes *Unreal* look a little bland by comparison





Challenging Epic is Looking Glass, with its firstperson 3D title, *Dark Project*. These latest shots show just how detailed the game will be. Looking Glass promises 3D acceleration as standard, and, as with its previous games, players will need a hi-spec PC to get the most from the impressive graphics







Square's realtime strategy war game *Front Mission Alternative* is due for release on the PlayStation in August in Japan. Unlike the previous games, *Alternative* boasts true-3D graphics and scaleable maps







The Curse of Monkey Island is the third installment in the ever-popular series from LucasArts. The graphics are approaching Disney quality this time around and the jokes are as funny as ever

possible to view the action through marine or alien eyes. Bluebyte's helicopter sim *Extreme Assault*, which uses the same new 3D engine, is also nearing completion.

The term 'long-awaited' simply does no justice to ***Monkey Island 3***, which is due to arrive on the PC before Autumn. Unlike that of *Monkey Island 2*, the plot is quite straightforward. The demon-pirate LeChuck is back and wants to marry Elaine Marley – Guybrush Threepwood's true love. The player takes on the role of the latter, of course, and must stop the evil, undead buccaneer getting his way. As with the last few LucasArts adventures, stylised hi-res graphics are used throughout, although *Monkey Island*'s incredibly intuitive point-and-click interface and surreal humour remain.

The Legend of the Seven Winds is the first Saturn game from Enix, which prior to the 32bit era only developed for the SNES. The game is currently looking beautiful, with characters and objects able to metamorphose into different shapes. The winds of the title are said to play an important part in the game.

Like Origin's *The Darkening*, ***One*** – a futuristic strategy action game from developer Visual Concepts – starts with a man waking up with no knowledge of his past. The player then has to take this hulk-like character through five levels filled with hunters, attack craft and armoured vehicles to find the truth of his identity, and perhaps just as importantly, find out why his left arm has been removed ▶







The characters in *The Legend of the Seven Winds* (above, left) are somewhat strange and further enhance their oddity by being able to change into different shapes should the game require players to do so









The Legend of the Seven Winds, being produced by Enix for the Saturn, is developed by Gibro, the developer behind the *Wonder Project* titles. The game will allow players to fully interact with their surroundings, such as planting seeds and witnessing their growth



Culture Brain is bringing an enhanced version *Virtual-Hiryu no Ken* to the N64 in an attempt to put an end to the dearth of fighting games on Nintendo's machine. The graphics certainly look the part, although **Edge** suspects that these shots are merely workstation renders













SCEE's *Rapid Racer* (left, above) is one of the new breed of PlayStation games to employ hi-res visuals. Its 60fps update (NTSC) sets a stunning new benchmark for 32bit software. Its split-screen mode is especially impressive, maintaining speed with no great loss of detail

◀ and replaced with a cybernetic weapon. The game, a visually stunning, true-3D take on Konami's *Contra*, allows the player to roll, flip, hang, climb and slide as well as perform various fighting moves. *One* is scheduled for a November release in the US through ASC Games, and will probably hit the UK shortly after.

Realising the lack of decent beat 'em ups on the N64, and no doubt the lucrative prospects that would surely accompany a good example of the genre, Culture Brain has announced it is converting ***Virtual-Hiryu no Ken*** for Nintendo's machine. This version will represent an obvious graphical enhancement over the PlayStation version (see **E**46) and will also include a Super Deformed option for beginners, similar to Sega's *Virtua Kids*. The game will offer 30 characters at a smooth 60 frames per second.

Following Capcom's usual urge to release remixed versions of its titles (particularly its *Street Fighter* series), the company is preparing ***Resident Evil: Director's Cut*** for the PlayStation. The two-CD pack will include three difficulty levels, including a remixed version with extra rooms and monsters, and a playable demo of the eagerly awaited sequel. **E**











One, a thirdperson-viewed action adventure from Visual Concepts, provides the player with a diverse range of visually impressive backdrops. Pleasingly, the lead character has a wide array of moves at his disposal











From Software's *Armed Core* (above) for the PlayStation continues Japan's obsession with mobile-suit games and is based on the highly popular 'Mobile Suit Gundam' television series which has lasted two generations. The game will feature 50 missions set in varied locations, such as cities and deserts, involving a wide range of tasks including rescuing hostages, etc





The Legend of Gradius on the PlayStation (above) has a scenario based 100 years after the last arcade game's setting. It will feature nine levels of full-on action and the *Gradius* series' classic array of power-ups

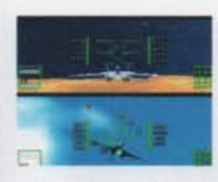








Capcom's *Resident Evil: Director's Cut* for the PlayStation will include new opponents (above right), camera angles (above centre), and clothes (main). The addition of extra rooms should keep veteran players on their toes as they patiently wait for the release of the full sequel







Sonic Wings Assault (left, above) is the next title from *PilotWings 64* developer Paradigm. Its gameplay promises to deliver a realistic sensation of flying while maintaining some arcade-style action. Paradigm is also rumoured to be working on a sequel to *PW64* for Nintendo



Konami's PlayStation version of *Midnight Run* will see players hammering along busy highways, overtaking other cars. It should keep racing fans happy until *GTi Club* makes it to the home

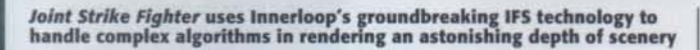




Joint Strike Fighter

Norwegian developer Innerloop is about to enter the combat flight sim arena with a title it hopes will blow its competitors out of the sky





***Joint Strike Fighter* uses Innerloop's groundbreaking IFS technology to handle complex algorithms in rendering an astonishing depth of scenery**

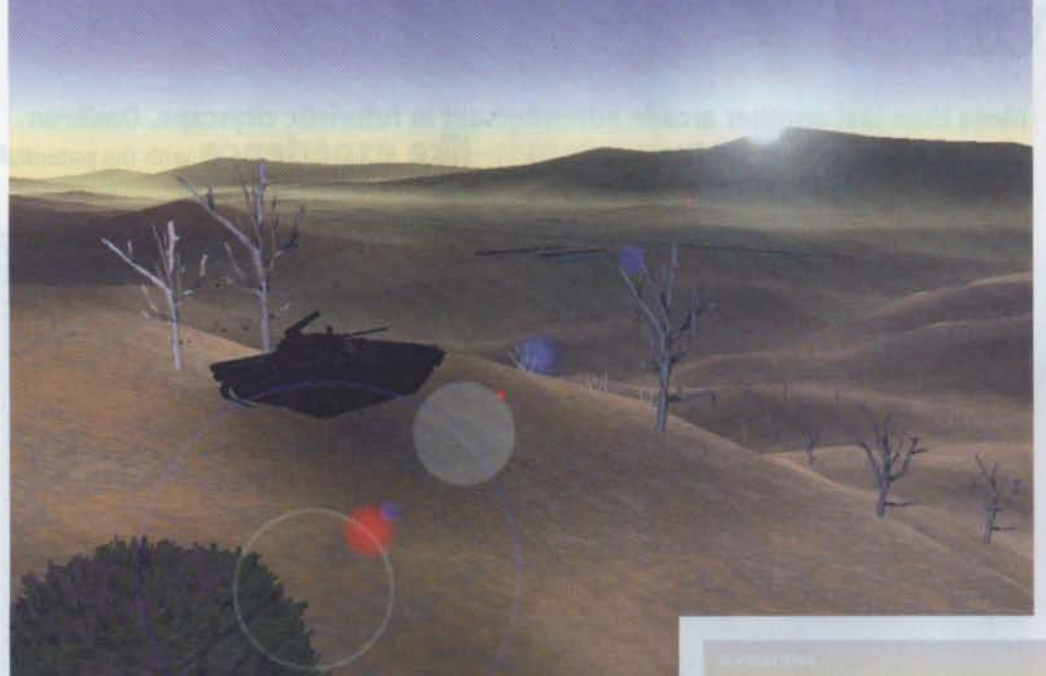


***Joint Strike Fighter* will offer players the first chance to test-fly the latest advances in US stealth technology**

Format:	PC
Publisher:	Eidos
Developer:	Innerloop
Release:	September
Origin:	Norway

Because of their complexity and large memory requirements, flight simulations have largely remained within the profitable confines of the PC games market. And while *Joint Strike Fighter* doesn't break the mould by appearing on a different platform, it does promise to raise the stakes for developers hoping to dominate the genre with their own ambitious ventures.

The game offers the choice of two aircraft – the Boeing X-32 and Lockheed Martin's X-35 – both being considered by the US Air Force for the replacement of the F-16 and F-18 models by 2010. The American aircraft makers provided Norwegian developer Innerloop with detailed information about the planes and the type of weapons they will carry, while further technical assistance came from an aviation expert, and consultation with their national Air Force, ensuring that craft will fly realistically.







Obligatory ground targets, such as tanks and SAM sites, are also present during deep-strike missions against enemy bases and headquarters (above)

The game's four campaigns will comprise nearly ten million square miles of terrain based on geographical data obtained via satellites

The terrain over which the action takes place continues the developer's strive for realism, with satellite data used to make sure every town, road, and lake is in its correct geographical location. Hence, the game's four campaigns, each consisting of five to ten missions within 2.4 million square miles of terrain, have a remarkably authentic look to them, and require the player to engage the enemy at sea, on land and in the air. Also, because the scenarios are dynamic, each mission will be different every time it's restarted, and the eightplayer link-up should further enhance the game's diversity.

Surprisingly, Innerloop has decided not to opt for 3D card support. 'We've worked with different types of 3D accelerators without any significant gain in appearance or performance,' explains **Thomas Hagen**, Innerloop's lead programmer, 'and we prefer to take advantage of the PC's RAM to store many large textures, which is not possible with most 3D cards.

'Also, because of the extremely high-resolution textures from our mip-mapping process, tri-linear interpolation is not necessary.'

Given the competition in the flight sim market, such a project is ambitious, particularly for a developer embarking upon its debut game. Programmer **Paul Endresen** is confident the team has something new to offer: 'I guess the obvious difference is the graphics – we've worked hard to create a 3D engine which performs terrain and object rendering better than anything yet seen on the PC [see **E**43 for more details].

'*JSF* uses our IFS technology which, contrary to other flight sims, gives the same visual quality no matter how high or low you are flying. The undulating terrain encourages low-level flying, meaning ground-strike missions offer a level of realism never before experienced.'

Joint Strike Fighter's visual flair is exemplary, but it faces strong competition in the form of MicroProse's *Falcon 4.0* and DID's *TFX F22*. The resulting battle for an overall victor should prove a dogfight meriting close attention. **E**





Mountains, canyons and valleys can be used in order to avoid radar or visual detection by the enemy installation

Omikron

More than just another arcade adventure set in futuristic cityscape, *Omikron* promises a genuine movie-like experience with the potential to revolutionise a genre that is begging for a breath of fresh air



Although still in early development stages, *Omikron* already exudes the dark, heavy atmosphere usually associated with a futuristic city. The finished version will include a greater level of street activity





Omikron is an arcade adventure game set in Phaenon, a planet in a universe parallel to our own. The extinction of the system's only sun has resulted in subzero temperatures, forcing the planet's residents to take shelter in five different cities encased in crystal domes. One of those self-contained megalopolis is Omikron, within which the game is set.

However, all is not as it should be. Astaroth, a demon from Phaenon's distant past, has resurfaced to conquer the souls of the inhabitants and, with the help of his growing horde of servants, aims to take over Phaenon and any parallel world which happens to be lurking about.

At the beginning of the game, the player takes control of the body of a member of the 'awakened' – a group aware of Astaroth's actions and intent in putting an end to his plan. This is obviously more complex than it might first appear, requiring players to explore their surroundings, using objects, solving puzzles and fighting their way out of trouble in order to survive.

The gameplay is divided into two distinct parts – arcade and adventure – with the arcade side comprising bare-handed combat and lasergun shooting sequences in realtime 3D. Developer Quantic Dream is adamant these will not be inferior sub-games – rather they will be

Format:	PC/PlayStation
Publisher:	Eidos
Developer:	Quantic Dream
Release:	3rd quarter '98
Origin:	France





***Omikron's* characters behave realistically (above) and some already employ excellent facial motion capture (right)**





As well as exploring the city on foot, *Omikron* will allow players to commandeer any of its various anti-gravity vehicles (above, top) t



worthy additions forming an integral part of the game while retaining the quality of the overall package.

Omikron's initial appeal must be the ability to roam freely around the city, talk to any of its residents, enter any building and use any of the futuristic vehicles that hover through its streets. But *Omikron* also has a few other tricks up its sleeve.

One of these is the innovative concept of 'virtual reincarnation'. When the character the player is controlling dies – in combat, for example – the game does not end; instead the player's soul transfers

For the first time in a videogame motion capture has been used for the characters' faces, resulting in an impressively realistic effect

into the first person to touch the dead body. The player then has to make use of the new host's abilities (having lost all of the previously acquired skills) and overcome their weaknesses in order to



As well as exploration, *Omikron* will feature plenty of realtime action sequences requiring players to hone their fighting skills to survive

progress deeper into the game. Furthermore, players will not be able to restore an earlier saved version of the game, being forced to continue their adventure in their newly found form.

Also, for the first time in a videogame, motion capture has been used for the characters' faces, which means they can be animated in realtime during dialogue sequences so that speech matches lip movements, resulting in an impressively realistic – if vaguely disturbing – effect.

Omikron further impresses in the way it already oozes a 'BladeRunner'-like atmosphere, with its menacingly dark, futuristic setting full of hovering cars and seedy-looking individuals. Indeed, much work has gone into trying to achieve the sensation of being in an actual city full of inhabitants going about their daily lives. Even after just six months' effort, the 3D engine is looking pleasingly smooth and Quantic Dream is promising the use of 3Dfx and PowerVR cards for the PC version.

Omikron is an ambitious project. If successful, Quantic Dream could have a title with the potential to revolutionise the concept of adventure games on its hands, capable of immersing players within a genuine movie-like experience. E



Omikron's unaccelerated 3D engine is one of the best Edge has seen. Vast locations scroll around smoothly creating a convincing setting

Lamborghini 64

After a lean period that has frustrated just about every 64bit machine owner, the N64 driving game genre is exploding. French developer Titus is the latest to join the fray with a supercar licence to kill for







The legendary Lamborghini Diablo will be the focal point of the game, but players will also be able to race other famous supercars, in both single player (above) and head-to-head modes (right)

Format:	Nintendo 64
Publisher:	Titus
Developer:	In-house
Release:	November
Origin:	France

With Seta's *Rev Limit* and Imagineer's *Multi-Racing Championship* already on the starting grid, it falls to Dream Team developer Titus to bring up the rear in what has to date been the most obviously neglected genre for Nintendo's game-starved powerhouse.

The most difficult challenge facing any company developing a racing title for the N64 is making it sufficiently better-looking than Namco's PlayStation efforts. Both *Rev Limit* and *Multi-Racing Championship* are struggling to outdo their 32bit counterparts with filtered textures and analogue control as standard, but in terms of general aesthetics, it's hard to see any significant improvements.

Both Titus and Nintendo will be hoping that detailed car models and strong atmosphere will give *Lamborghini* a visual flair that will leave gamers in no doubt as to the technological gulf that exists between the N64 and its rivals.

Of course, racing games are difficult enough to tell apart as it is, the market overblown with lame *Ridge Racer* and *Sega Rally* clones. Any game wanting to steal the crowns from those respective classics must walk a tightrope between simulation and arcade appeal. To help keep its balance, *Lamborghini* offers a number of racing modes across four circuits, ranging from a standard-issue race track to jungle-themed and obligatory city- and mountain-based courses.

Eric Caen, president of Titus, believes that choice is the key to success: 'The Arcade mode is easy to get into, with the cars just racing through the checkpoints and going for position, and the cars are pretty easy to handle. In Tournament mode, you can toggle the number of laps you want to race, and you can also decide on the level of realism you want to drive with by choosing whether you want car and tyre damage on – which significantly affects the outcome of a race, particularly a long one. We're really trying to achieve a successful balance between real driving conditions and coin-op-style racing.'

The biggest concession to coin-op gamers is the inclusion of power-ups in the special 'Revolution' mode. These appear randomly around the tracks and provide time bonuses and/or speed-ups and tie in with what is certain to be the unique selling point for *Lamborghini*: evolving circuits. As races progress, a









In an original twist, the courses are designed with sections that change during races











The game will feature a wealth of distinctive trackside details



And where would an N64 racing game be without the appearance of lens flare?



Lamborghini 64 **now faces more competition than it would have hoped for. It will need a powerful 3D engine if it is to be successful**

number of events are triggered to vary the pace, such as rock falls blocking roads, bridges suddenly collapsing, and secret short cuts appearing in a previously impervious-looking cliff face. The programming team are hoping to include the evolving tracks in all modes, but it's unlikely that they'll appear in the three and fourplayer split-screen modes, as a concession to frame rates.

The car damage options will come into play here as well, as the drivers negotiate hazards such as gravel, rocks and ramps in hammering out the fastest route to the finish, and to this end, pit stops are provided. Unlike *Sega Rally* or *GP2*, however, pits aren't an automatic ticket back into the race. Instead, players must manually repair their cars using the controller to select and replace worn tyres and damaged bodywork. The end result is that in the Tournament modes the player must not only master the track and the vehicle, but the pit stop controls, a feature that could be seen as either a major innovation or an annoying diversion by those accustomed to the way other games treat car-repair options.

With a split-screen mode, some slick-looking car models and the option to race not only the Lamborghini Diablo, but the Ferrari F50, Bugatti EB110 and Vector M12 supercars, Titus may well be looking forward to establishing itself as something of a racing force in the lead up to Christmas.

Having already had various stabs at the racing game genre with 16bit computer titles such as *Crazy Cars*, *Fire and Forget* and even a *Lamborghini*-licensed effort for the SNES, Titus clearly has some experience upon which to base a 64bit example.

None of the aforementioned games were particularly striking, though, so it will certainly be interesting to see what those extra 48 bits are able to afford Titus' not-inconsiderable ambition.







Though Titus does not have a gleaming track record in the racing game genre, the N64's inherent graphical punch should ease the load of producing a worthwhile experience. Smoke effects are certainly easy enough to incorporate...

Flight Unlimited 2

Looking Glass will be gunning for Microsoft with its scenic sequel to *Flight Unlimited*, a power-hungry game that's still regarded by many as the gold standard in flight sims





The game takes place over 11,000 square miles of San Francisco scenery



The game will see players sharing airspace with up to 450 other aircraft

No sooner have PC owners upgraded to decent Pentiums, just powerful enough to run the original *Flight Unlimited*, than they're faced with its power-hungry successor.

The verdict on the original was that Massachussetts-based Looking Glass had produced a fine-looking simulation, but failed to appeal to the conservative mainstream, as PC owners, particularly in Europe, clung to their ageing 486s.

Fortunately, things have moved on and with the advent of hi-spec Pentiums and 3D cards, Looking Glass may finally have the technology it's been waiting for.

'We will be supporting D3D,' claims **Alan Dickens**, the game's producer, 'and native support for some other cards, but we haven't decided which to back yet. But our target machine is a P166 or P200.

'As with all Looking Glass games, *Flight Unlimited 2* will maintain its playability as technology advances. People are still playing the first game some two years down the line because the better your technology gets, the better the game looks – it doesn't reach a technological plateau.'

Fans of the original, or even those who've only recently had the processing power to play it, may be surprised to learn



Fans of the original game may be disappointed to find that the seat-of-the-pants style has been replaced in favour of a more graceful approach



Even without the now-becoming-obligatory 3D card acceleration, *Flight Unlimited 2* is a visually stunning title

Format:	PC
Publisher:	Looking Glass
Developer:	Eidos
Release:	August
Origin:	US







The game's detailed environments were created using satellite data from the US Department of Defense, which was then mapped on to the textures. The city is so detailed that individual houses can be picked out on a flyby



External views, essential in any flight sim, are particularly effective in *Flight Unlimited 2*

that for the sequel, Looking Glass is shifting the emphasis away from aerobatics and moving closer to the straight sim. And without guns, bombs or any of the other paraphernalia associated with that genre, *Flight Unlimited 2* must be pitched squarely at Microsoft's *Flight Simulator* game. The hoops course has been replaced with 11,000 square miles of satellite-map terrain so detailed that Dickens claims anyone living in the San Francisco Bay area will be able to pick out their own house on a fly-by.

'It's the most detailed terrain yet seen in a flight sim,' he boasts. 'It's way ahead of anything else out there. We're going head-to-head with Microsoft on this one, and we're going after them as hard as we can. We found that a lot of people liked the stunts in the original, but many more played it straight, as a pure simulator, and that's what we've honed in on.'

It would be easy to dismiss *Flight 2* as nothing more than a dull PC simulation, but to do so would be to ignore the potential of such a simple concept in the hands of a company adept at providing involving and long-lasting gameplay. The control towers will buzz with realtime radio chatter and more than 450 other aircraft will take off, land and join players on their tour. It won't be just the devout propellerheads who find something special in this game – those who simply wandered the skies of *PilotWings 64*, admiring the scenery, will find much to admire in the hyper-real virtual airspace of *Flight 2*. E



The detail of the aircraft models is amazing – as are the ground textures, which look better than any other sim





For those who hanker after their own plane, *Flight Unlimited 2* will almost certainly provide them with the most realistic civilian sim yet. But is it fun?

Plane Crazy

Not only is the PC still going from strength to strength in the domestic market, but the maiden game from a hitherto unknown multimedia developer is set to put PC-based machines into arcades for the first time



The technology might be cutting-edge PC, but the visuals retain a rather basic – if wonderfully textured – feel

Glasgow-based developer Inner Workings isn't exactly a household name. Until now, it has contented itself with producing kids' multimedia CD-ROMs for a number of illustrious publishers, including the BBC (*Wallace and Gromit Fun Pack*) and Dorling Kindersley (*The Jolly Post Office*). But its first game, *Plane Crazy*, will catapult it to fame this autumn, whether it lives up to expectations or not.

Plane Crazy is a cute-looking 3D-modelled plane racer with gameplay more akin to a motor-racing game than a flight sim, thanks to a series of courses featuring cliffs and tunnels and topped by an invisible 'ceiling' above which the player cannot fly. It's different, fast, attractive and makes good use of 3D graphics cards via *Direct3D*.

But the most startling thing about it is that it will appear as a coin-op this August, running on arcade boxes which are essentially pumped-up PCs, before

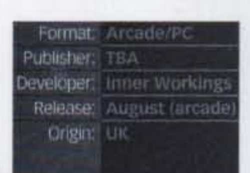




***Plane Crazy* will have the appeal of a driving game, thanks to speed**



***Plane Crazy*'s strength in the arcade sector is likely to be its originality. Namco has released aircraft-based coin-ops in the past (notably *Air Combat*), but few which offer the immediacy and light-hearted feel of Inner Workings' game**



Format:	Arcade/PC
Publisher:	TBA
Developer:	Inner Workings
Release:	August (arcade)
Origin:	UK





Many coin-ops now clock in at US$15,000; Inner Workings' models will be around half that

shipping for *Windows 95* and the PlayStation towards the end of the year. In other words, it's the first game to be designed to take advantage of Microsoft and Intel's arcade initiative and, as such, will set the tone for the attempts of the two corporate PC giants to undermine the likes of Sega and Namco on their home ground.

Andrew Walker, head of games development at Inner Workings, is enthusiastic about the economic possibilities of the Intel/Microsoft initiative. 'It opens up the whole arcade world for developers and systems integrators. Currently, arcade boxes sell to operators at about $15,000, and it takes a long time for them to make a profit. What operators get with the Intel/Microsoft machines is the ability, once demand does tail off, to open up the box and replace the CD.'

'The starting price for our boxes hasn't been decided, but I reckon it'll come in at around $7,000,' adds Walker's colleague, **Mike Lancaster**. 'A few years ago the US coin-op market was worth $6 billion, but it has now come down to $2 billion because the machines are more expensive and there's less choice.'

'A few years ago the US coin-op market was worth $6 billion, but it has now come down to $2 billion'

On the basis that Microsoft/Intel machines will be about half the price of current ones *and* upgradeable, Walker and Lancaster reckon they will be greeted as saviours by beleaguered arcade owners. But can these boxes really compete with high-powered arcade machines? Lancaster reckons they can. 'If you look, say, at Sega's range, its games have only got slightly better from *Daytona* through *Sega Rally* to *Super GT*.'

Walker believes that 3D-accelerated games are now on a graphical par with arcade games. '3D accelerator technology is the key, along with the idea of generic software provided by DirectX support. I'm sure that Microsoft and Intel will publish a new spec every year. Innovations like AGP will become important.'

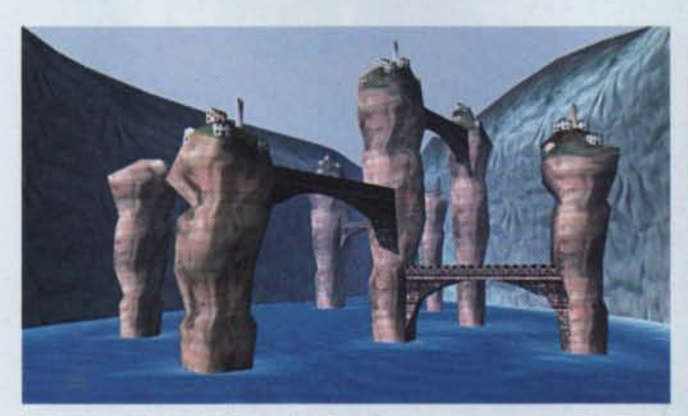


Though much of the game's scenery is relatively straightforward in its construction, some parts bear a considerable level of atmospheric detail

If you find a *Plane Crazy* machine this autumn, check out how it stacks up against its peers, bearing in mind that under the bonnet will be a 266MHz Pentium II, at least 32Mb of RAM, a 3Dfx card, a USB controller and a 24-speed CD-ROM drive.

There are some unresolved questions, such as how developers will be paid if arcade operators start putting different games in their machines. Walker doesn't regard that as a problem, and prefers to dwell on the potential advantages, such as the intriguing prospect of including modems in the arcade boxes. He also points out that CD-based games make it easier to sell localised advertising. But his ultimate ambition is 'to get arcade machines back into the corner shops and chip shops, and thus expand the market.'

Edge hopes *Plane Crazy* helps to achieve just that aim.





***Plane Crazy*'s levels offer a diversity of scenery. Some require the player to manoeuvre through tight spaces between rocky cliff faces (right)**





Contact with other vehicles tends to result in damage to the player's car rather than the over-the-top crashes found in other games. However, a driver who persistently pushes his car beyond its limits can still come a cropper (right)

Motors and rotors

Seta may not be quite as well known as the arcade giant Sega, which is its close neighbour, but this small Japanese softco, formerly associated with 16bit formats, seems to have bridged the next-generation gap with ease. Edge looks at the first fruits of its transition to 64bit development



Tokyo's south-western suburb of Kamata is perhaps best-known as the location for Sega's headquarters. But, confusingly, it is also the home of the similarly named Seta, a company which made a name for itself during the height of the 16bit era with SNES titles such as the *Exhaust Heat* series and *Nosferatu* (a dark *Prince of Persia* clone). When the N64 was first announced, Seta made the transition to 64bit technology and continued its association with Nintendo by forming part of the first phase of teams to develop for the cartridge-based machine.

Seta currently has two games in development, one of which is *Rev Limit*, a racing game with all the features now de rigeur in the genre, including long-distance racing (players will be able to choose short races lasting between three and ten laps as well as endurance-testing affairs of anything from 20-50 laps).

Although in some respects *Rev Limit* resembles a Nintendo 64 version of *Ridge Racer*, **Yasuhiko Kikuchi**, the game's designer, is quick to differentiate it from



Seta's new N64 titles are racing game *Rev Limit* (top) and helicopter shoot 'em up *Wild Choppers* (above), which could prove helpful to a machine lacking in both genres







Wild Choppers* owes much to the involvement of its chief designer in earlier helicopter sim *Twin Eagle 2










As might be expected, *Rev Limit* includes all of the familiar features found in any number of other racers – neon-lit tunnels, a variety of weather conditions and night-time driving. In some respects, it's the N64's answer to *Ridge Racer*, and fans of Namco's game will instantly feel at home here

Namco's classic. '*Ridge Racer* started life as an arcade game and as such suffers from a lack of longterm appeal. For *Rev Limit* we've included eight tracks and aimed it at the console market. Our primary aim was to create a very realistic game because we believe players who actually drive must feel dissatisfied with the way cars handle in most of the current games.'

This realism has been extended to other parts of the title, resulting in very impressive weather and lighting effects. In addition, contact with other vehicles causes authentic damage, and pit stops have to be completed in the shortest time possible, as well as planned strategically to maximise the player's advantage over the other racers.

Oddly, though, despite its apparent commitment to realism, Seta has opted to ignore Jolt Pack compatibility for *Rev Limit* – something Imagineer has included in its rival title, *Multi-Racing Championship*. However, according to team leader **Harada Noboru**, authenticity was the very reason for this omission. 'It is very easy to implement it in the game but we found it difficult to decide when to do so without it distracting from the game rather than adding to the experience. We decided the effect just wasn't particularly realistic. Also, we think it's too heavy when playing a racing game.'

Seta's other N64 project is *Wild Choppers*, which also happens to be the second helicopter game for Nintendo's machine (Kemco's *Blade 'n' Barrel* being the other contender). However, the original brief from Nintendo wasn't particularly specific. 'We were initially asked to come up with a shooting game that made use of the analogue control,' recalls chief designer **Kozo Igarashi**. 'We immediately thought of a helicopter arcade game with the emphasis on frantic battles, rather than doing a boring simulation. Furthermore, I also had some experience in helicopter games, having contributed to the arcade development of *Twin Eagle 2*.'

Contact with other vehicles causes authentic damage, and pit stops have to be completed in the shortest time possible




Wild Choppers designer Kozo Igarashi (top) and *Rev Limit* team leader Harada Noboru (above)





Despite *Wild Choppers'* difficult-to-master control system (which couples D-pad and analogue stick), Seta's sights remained firmly fixed on action rather than simulation, with the result that explosions occur with great frequency







The limited range of weapons means that making the right selection is crucial (top)









The different stages in *Wild Choppers* mean that players may have to take on airborne enemies as well as ground-based targets (top), fly along *Ace Combat*-type canyons (above left) or take part in night missions (right)



A total of ten people make up the two teams working on Seta's current N64 projects

The plot behind the game's seven levels is based on the usual lone campaign against a terrorist outfit scattered about the 3D landscape. Seta's original plan to include sub-missions in order to extend the game's lifespan was abandoned in favour of additional stages.

Despite the game's innocent-looking, cartoon-like scenery, danger lurks everywhere, with air and ground attacks allowing players to experience *Airwolf*-type action. According to Igarashi, blasting action is what lies at the game's core. 'At first the control of the helicopter will seem difficult, but once mastered, players don't have to concentrate on the flying as they would in a simulation, leaving them free to focus on the enemy's arsenal.'

Despite the game's cartoon-like scenery, danger lurks everywhere, with air and ground allowing the player to experience Airwolf-type action

Even though the two titles represent Seta's first attempt at N64 development, the firm appears to have overcome any teething troubles. 'It's essentially the same thing for all platforms,' says Noboru. 'I think anyone who has already worked in 3D for the PlayStation, for example, will find the N64 easy to work on.'

The restrictions of working for a cartridge medium were also dealt with. 'Of course, a bigger storage capacity would be desirable, but one has to consider the benefits of cartridge loading times, particularly appropriate for a game such as *Rev Limit*,' asserts Kikushi. 'But the capacity of the cartridges is always increasing as production costs fall – we now have 64- and 96-megabit examples, soon to be followed by 128Mbit carts.'

Surprisingly, working for Nintendo proved to be no more restrictive. 'They don't interfere with the development at all,' reveals Noboru. 'Occasionally we consult their developers' support centre in order to find out the best way to go about a certain aspect of the game, but Nintendo hasn't got as tight a grip on developers as most people seem to think.'

Gamers will be able to pass judgement on Seta's success in transferring to 64bit technology when both titles are released later this year.







Like all racing games, a selection of different cars is available, each with its own handling characteristics, affected by the weight of the car and the choice of tyres





It remains to be seen how important a part *Rev Limit*'s comprehensive onscreen information will play (above)

The worm that turned 3D

An untested Scottish developer has not only managed to bag an established and potentially lucrative licence but has also come up with what could be the most inventive game of the year. Edge visited the team to find out more

I keep waking up in the morning and thinking, "How the hell did we manage to get this?"' exclaims **Chris van der Kuyl**, VIS Interactive's chief executive officer. Indeed, there must be few videogame companies around that can boast of having secured the development of one of the industry's biggest titles without having previously developed a single game.

Based in a former maternity hospital in Dunfermline, the now 40-strong company was founded in January 1996, after van der Kuyl became disillusioned by its former specialisation in advanced multimedia technologies. 'We took a decision at E3 in 1995, after we realised that multimedia was not what we were interested in doing at all.' By the end of that year, the company's core members had been recruited and were focusing on the task ahead.

'We took a look at the industry and saw that publishers squeeze developers all the time and then all sorts of hassles start,' explains van der Kuyl. 'So we decided, we'll actually go over and talk to publishers and make sure they think it's a good idea, get them totally on board, but then we're also going to make sure that we've actually got enough in the bank so that no matter what happens, we don't have to go, "Okay, anything you say," which has happened to a lot of people. We're not anoraks but we're all keen gamers and really want to push things hard, to create games that just go on and on.'



From left to right: Paddy Burns (software vice president), Robbie Graham (art vice president), Kirk Ewing (creative development vice president), Chris van der Kuyl (VIS Interactive's CEO), and Scott Maxwell (vice president of games development)

This determination to ensure that the final product is not compromised might have played a part in Interplay's decision to give the Scottish developers the licence for *Earthworm Jim 3D* rather than several well-established European software companies. Perhaps even more surprising than VIS' coup, though, is the fact that Shiny Entertainment isn't doing it. 'I think Shiny work under the principle that they develop a property, take it to a level and then let it fly,' offers van der Kuyl. 'And they're in a great position. They can decide what they want to do and they decided to do something else rather than stick with *Earthworm Jim*, whereas we saw it as a great opportunity for a new company starting out and also because he is such a strong character.'

Although Shiny maintains the right of approval, VIS was given carte blanche over the game's design. As its title suggests, for the first time in Jim's many outings, the action takes place in true 3D, allowing total freedom of movement within the game's environment. But van der Kuyl is quick to point out that it is not merely a straight platform game which has been given a 3D coat of paint. 'We started out to do *Jim* as he has always been, and so we've given him a cartoon look. The 2D games are just like great cartoons, so we thought we'd try to do this in 3D. We're not trying to do a shiny, glossy Jim – he's going to look like a cartoon but in full 3D. If we were trying to do the original *Jim* games in 3D, we would have had all sorts





Here, the colourful childhood world (left) contrasts against the stark nature of the logic setting (above)



***EJ3D* is still at an early stage – all of these shots are taken from a mocked-up N64 version of the game**







Although still early, these shots are already indicative of the sort of warped, disconcerting – yet colourful – world players can expect to find inside the invertebrate's head (above)



VIS' creative team obviously let its imagination roam free when it came to Jim's enemies (above)

of horrendous problems. There are platforms and all those things, but it's a much more open game.'

This time around, Jim has suffered a severe blow to his head which has left him trapped within it. The player's task is to repair his cerebral cortex by venturing into different areas of Jim's psyche, exploring his phobias, childhood memories and fantasies, and repairing them in order to revive him from his nightmare state.

Along the way Jim has to face old enemies, including Evil the Cat, Professor Monkey-For-A-Head and Bob the Goldfish, as well as the new adversaries the creative minds at VIS have conjured up. Expect to meet the Bovine Special Elite (mad, gun-toting cows), a manic scooter-riding rabbit named Rabid, and Disco Zombies, complete with flared white suits and oversized gold medallions.

According to van der Kuyl, recreating the humour present in the game's previous incarnations was easy.





Chris van der Kuyl, VIS Interactive's CEO (above) and Kirk Ewing, in charge of creative development (left)

'Jim's come to Scotland, so he's definitely got a bit of the Scottish humour in him rather than the pure Californian, but the two match really well, and Shiny just thought our brand of humour was exactly what they wanted to see.'

Jim's off-kilter persona is reflected in the level designs. The 30 stages see Jim travelling through five worlds, each representing different areas of his brain. To this end, 'Happiness' finds him on a giant pizza where he has to struggle over toppings while avoiding hazards; 'Fear' includes a range of classic horror clichés stemming from his over-consumption of B-flicks; while 'Fantasy' indulges his long-standing desire to become a sheriff in a Wild West town. The whole experience resembles something that might have materialised out of David Lynch's mind.

As well as running around dodging bizarre obstacles and solving fiendishly designed puzzles, Jim has to work his way through a variety of sub-games. These include one in which he flies around with his pocket rocket, and a snow-filled section where he does the 'slalami' using a huge sausage as a snowboard.

The game is currently being developed for the Nintendo 64, PlayStation and PC, but there will be differences between the three versions, as van der Kuyl explains: 'The N64 will include all of the technological tricks that the machine allows. The only thing we've got an issue with is what to do with the music, but we think ▶









As well as bizarre opponents (above), VIS has come up with suitably odd subgames such as the 'slalami', requiring the player to surf atop a slippery sausage (top left)

we've got a neat idea. The best example of this is *Shadows of the Empire*. The music in that doesn't sound like MIDI music and that's because it's not – they've sliced it up and done on-the-fly mixes. The PC version is in D3D so with the right card it will look as good as the N64. The PlayStation will probably have a few different things, because we want to differentiate it a little bit as *Earthworm Jim* will never be exactly the same on it.'

As if grabbing one of the hottest licences around wasn't enough, VIS has gone a step further and persuaded Hasbro, a company which usually only licenses conversions of its own board games, to publish the Scottish team's second game in development.

H.E.D.Z. is a possible contender for the weirdest plot in the history of videogaming. A race of aliens has secretly been visiting Earth for thousands of years, choosing interesting human specimens and taking them back to their planet. Once there, the live specimens are put through a modified carwash apparatus which decapitates them, removes their brain, polishes their eyes, cleans out their ears and spraypaints them to provide the aliens with a trophy-like piece of headware at the end of the gruesome process. Obviously, this being a videogame, the aliens instantly assume the character's abilities when they stick them on top of their own heads and then set off to battle across the galaxy.



H.E.D.Z.'s oneplayer game offers an impressive 225 wildly different heads, five of which can be taken into combat at a time against computer-controlled aliens



'The basic concept behind *H.E.D.Z.* is the game of marbles and the idea of having some kind of game where you'd have a collection of things that you would gamble against someone else's,' explains **Kirk Ewing**, vice president of creative development at the firm. 'There's a little bit of 'Predator' in it, but it's like 'Predator' meets Worzel Gummidge.'



H.E.D.Z. boasts an unprecedented 225 characters for the single player to battle with across seven environments

H.E.D.Z. boasts an unprecedented 225 characters for the single player to battle with across 35 levels in seven environments. They're as diverse as you could imagine, and include 'real' people like Jimi Hendrix, Richard Nixon, Alfred Hitchcock and Salvador Dali, each of whom has a unique, a normal and a special attack. Indeed, the Spanish surrealist painter would have approved of some of *H.E.D.Z.*'s other contestants – the 'aircraft carrier for a head' character springs to mind – and **Edge** can only imagine that he would have felt at home within the confines of the former maternity hospital in Dunfermline.





'We wanted to have a total dense variety of characters – something that would incorporate every slice of culture stuffed into all of these characters,' says Ewing. 'This is combined with the principle of a combat game where you pick a number of heads – in this case five – and gamble them against someone else in a game of war. And there's an element of cash, too. You can shoot someone, their head pops off, you collect it and then you dunk it in an American football kind of way to get the cash back for it, with which you can recharge the heads you want to take out in your collection.'





The variety of heads allows for strategic play. Certain types are suited only for attack (firing homing missiles, for



Vehicle-based heads allow rapid access to any of the area's vantage points (above) The emphasis is on players to work out their own strategy in order to win battles







example), while others act defensively (by turning into, say, a block of stone). Some use vehicles (land, water, and air) in order to quickly reach vantage points, while 'Info heads' survey the landscape and store the information in order to reveal potential ambush spots.

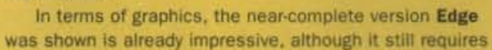
Info heads also have another use. 'They allow you to find out what heads other people are using,' explains game designer **Stewart Waterson**. 'The strategy element of the game means that you could come across a weak head and feel confident that you could beat the other player. But he could be playing a game with you and could pop that head and have four really dangerous heads. So you could be lured into a false sense of security.'



It seems that people who buy *H.E.D.Z.* when it is released are assured of some smooth, frantic action. But as much fun as the oneplayer game might be, the most appealing feature of *H.E.D.Z.* could well be its online capability. 'I suppose the initial premise was for it to be the ultimate Internet game,' asserts Ewing. 'We believe that this is an integral component and we think some of the best fun can be had over the Internet. We really want to create a culture where these things are collectable and tradeable. We'd like a stock market of heads running on the Internet.'



In terms of graphics, the near-complete version **Edge** was shown is already impressive, although it still requires a few finishing touches. The cartoon-style approach does much for the game's overall character and the heads themselves are pleasingly detailed – a result of VIS' advanced voxel techniques. 'The beauty of voxels is that you can model anything as complicated as you want and do things that you can't necessarily do with polygons,' says Ewing. The use of 3D cards should heighten the game's graphical appeal, allowing it to make use of advanced blending and transparency effects and incorporate other visual trickery.



Despite the company's obviously demented approach to games, VIS Interactive's vision remains sound. For example, Van der Kuyl is determined not to expand for the sake of it. 'If we can find brilliant teams, we'll put them on. I don't care if we've got 50 teams – if they're great, I'll have 50 teams. But if we can only get shit, then I'm quite happy to sit with two teams.'

Judging by the quality of its first two titles, the big league of interactive entertainment could soon be welcoming a new player...





VIS' art (top) and music (above) departments





The online capability is *H.E.D.Z.*'s greatest potential, ensuring frantic action as eight players battle it out

EDGE® magazine July 1997

ALIFE LESS ORDINARY

MOST GAMES LOOK TO THE PAST FOR THEIR INSPIRATION; COMPUTER ARTWORKS' *EVOLVA* USES COMPLEX SCIENTIFIC THEORIES AND THE STATE OF THE ORGANIC ART





Destroying alien hatcheries (above) is sure to make up an important element of several *Evolva* missions – there will be 12-15 of them in total

In the game, the player controls four Geno Hunters – weird hybrids of insect, reptile and mechanoid

The screensaver has never been a particularly respected artform in the world of computer entertainment – not least because modern monitors have now rendered it pointless. However, last year burgeoning software company Computer Artworks turned its acclaimed *Organic Art* package into a saver and then made the program available on Microsoft's website. Within ten days, 100,000 downloads had been made and it suddenly seemed as though no PC was complete without a 3D virtual sculpture swirling around the screen when the computer was not in use.

The reason for the fuss was simple: *Organic Art* was a beautiful and inspiring exploration of computer artist **William Latham**'s theories on evolutionary art and artificial life – now the driving forces behind everything Computer Artworks does. But this was just the tip of the company's ambitions. Latham, together with game designer and programmer **Mark Atkinson** and a very small team of committed individuals, is now working on a number of projects, including *Organic Art 2*, a logo for new cinematic sound system DTS, and, most interestingly, a PC game called *Evolva*.

It is the latter which the company seems to be most excited about. Latham himself has admitted that '*Organic Art* was only a stepping stone towards making *Evolva*.' It is also that game, still in the early stages of development, which drew most of **Edge**'s attention on a recent trip to Computer Artworks' cramped offices in Victoria, London.

The game itself sounds straightforward. An alien race is spreading throughout the galaxy like a virus, landing on planets, using up their resources and then destroying them, sending millions of alien eggs into space ready to land on new worlds. The player controls a group of four biomechanical droids, known as Geno Hunters, which land on one such infected planet and have to carry out 12-15 missions (the final number hasn't yet been decided) to destroy the alien race and save the planet.

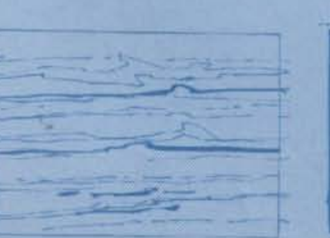
At a very basic level, then, *Evolva* is a kind of thirdperson strategy shoot 'em up, combining elements of *Quake* (violence), *Command & Conquer* (military strategy) and *Tomb Raider* (puzzle solving). However, beneath this rather orthodox exterior, almost every facet of the game is driven by Latham's organic/evolutionary ideas – not for the sake if it, insists Atkinson, but because they add to the gameplay.

Perhaps the most important use of the evolution concept is in the Geno Hunters' capacity for mutation.





There are dozens of powerful weapon pick-ups available to the player with which to combat alien troops. When not in use, these weapons merge back into the finely detailed exo-skeleton of the Geno Hunter



10. The second probe is hit by explosion, the screen breaks up.



11. In deep space we see a lone EVOLVA Space craft



12. Interior of the EVOLVA space craft. The ship is piloted by a solo scout Evolva. He is guarding the frontiers of his race's universe.



13. The Evolvas are a race of advanced aliens, humanoid in origin, who have become masters of genetic engineering.

This process is probably best described by Atkinson, who refined Latham's original ideas into a viable game system. 'The main form of power-up is the Mutator,' he explains. 'By killing things you accumulate mutation points, and once you reach the threshold you get to use the Mutator [which appears as a separate options screen]. This gives you a selection of mutant variants on your Geno Hunter, each powering up the creature in a different way – faster, stronger, smarter, extra weapon, bigger weapon, modified body part, extra body part, etc, or, if you're lucky, a new ability. You choose the variant you like best and your GH morphs into this form.'

In other words, instead of picking up rigidly defined power-ups, the player acquires genetic traits which give his Hunter different abilities and cause it to morph into new shapes. In addition, the player can use the Mutator screen to merge the genetic attributes of two Geno Hunters (ie to mate them) in order to come up with 'babies' which combine the separate strengths of their 'parents'. In this way, users can mould Hunters to comply with their own ideas of what will make a successful being – fast and athletic, or slow and loaded down with weapons. The chance of two players mutating their Geno Hunters into identical beings is apparently 1,000,000,000 to one, so each group will be unique. Computer Artworks is even considering making it possible for players to swap Hunters over the Net.

And that's not all. According to Atkinson, players can also gain new special abilities (fire-breathing, polymorph, psychic, body charge, web, etc) by killing a boss alien which possesses the ability the player seeks. Once dead, the boss drops the gene and the Hunter picking it up immediately acquires that new ability. It then becomes part of the player's collective gene pool, which means that it will have an increased chance of appearing in all Geno Hunter Mutator sessions from then on.



All the visuals see here are from the 3Dfx version of *Evolva*, but other PC 3D cards will be supported



The variety of creatures in the game is immense. Each is a 3D realisation of Latham's organic art techniques

Given this diversity, it is difficult to describe what the Geno Hunters actually look like, although they're probably most accurately described as 'biomechanical insects'. **Edge** saw a number of mutated GHs at Computer Artworks, all of which looked amazingly intricate and smoothly animated. Lke the Hunters, the baddies can also mutate themselves, but they come in basic types such as soldiers, scouts, builders, etc. It will be up to the player to find out what enemy beings (again, 'biomechanical insect' is the most appropriate description) do what, and which pose the biggest threat. All, however, are highly intelligent. As Latham points out, 'The aliens that you will be up against are really "living", driven by AI and ALife algorithms. They are seriously dangerous opponents, as they are unpredictable like predators in the real world.' This should add an extra challenge to players used to predictable enemy behaviour...

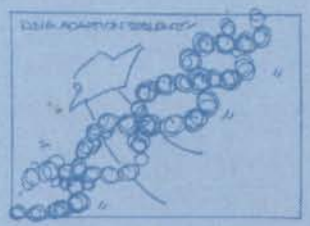
As for the missions, the objectives vary from taking out key enemies to infiltrating whole hives, and all make effective use of the fully 3D landscape (so players will often have to work out whether attack would be better from above or below). On top of this, they require a variety of tactics by combining puzzles with straightforward shooting. The problem of controlling four Hunters at once is remedied by means of three camera views at the base of the screen, enabling the player to control one Hunter while at the same time keeping an eye on what the others are up to. This not only allows all







***Evolva* is filled with eerie and beautifully designed scenery, bathed in light of various colours. Each mission takes place in a new location**



14. On computer monitors we see DNA molecules



15. Which then mutate into...



16. Genetically engineered hunting creatures. These are the Evolva's "GENO HUNTERS" that he uses to hunt down hostile alien life forms.



17. The ship is hit by the huge shock wave of the planetary explosion.





Textures are so detailed in *Evolva*, and the frame rate so smooth, that the game resembles rendered footage







The Computer Artworks team have spent hours mapping out the ways in which the Geno Hunters mutate in response to different pick-ups

four to be protected simultaneously but makes it relatively easy to formulate deployment strategies.

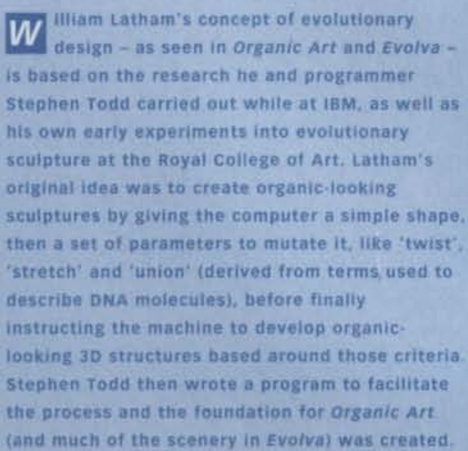
Visually, the game is truly breathtaking. Each mission takes advantage of a different landscape style, so the player gets to see jungles, ice plains, deserts, etc – all lavishly detailed and brashly coloured in hi-res. The game will also be supporting 3D accelerator cards, so a sustained frame rate of 30fps is expected.

Most interestingly, though, all of the weird landscape features are designed with Latham's *Organic Art* at their core, which that means nothing is quite as rigid at it seems and many aspects of the surroundings are open to mutation. Explorable tunnels, for example, open up out of nowhere, and seemingly harmless plants transmute into deadly enemies as the player passes. It is as if every aspect of the game is alive – a refreshing move away from the static prettiness offered by most game scenery.

Computer Artworks is, if not unique, certainly one of the most innovative companies working in software development today. Despite the familiar gameplay themes, there's a wealth of ideas here, and, for a change, a slightly different range of influences than the last big beat 'em up or firstperson shoot 'em up. If *Evolva* is a success, there is a chance it could convince publishers to allow a greater element of individuality into games. Latham, however, remains philosophical. 'This could either be an enormous success or a gigantic failure,' he states matter of factly.

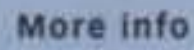
EVOLUTIONARY

Art and Artificial Life



William Latham's concept of evolutionary design – as seen in *Organic Art* and *Evolva* – is based on the research he and programmer Stephen Todd carried out while at IBM, as well as his own early experiments into evolutionary sculpture at the Royal College of Art. Latham's original idea was to create organic-looking sculptures by giving the computer a simple shape, then a set of parameters to mutate it, like 'twist', 'stretch' and 'union' (derived from terms used to describe DNA molecules), before finally instructing the machine to develop organic-looking 3D structures based around those criteria. Stephen Todd then wrote a program to facilitate the process and the foundation for *Organic Art* (and much of the scenery in *Evolva*) was created.

The Mutator element of *Evolva* takes the idea a step further by introducing an element of artificial life into the proceedings. Unlike artificial intelligence, which seeks 'only' to replicate the intellectual resources of a human mind, artificial life is an attempt to emulate the biological processes of living – genetics, evolution, natural selection, sexual reproduction, etc. Millennium Interactive attempted a similar experiment with its immensely clever, but commercially unsound, title *Creatures*. However, now, of course, everyone has gone artificial life mad with the advent of Tamagotchi – a simple AL product.

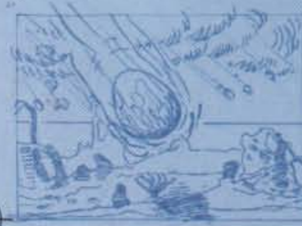


More info

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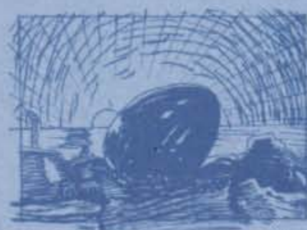
23. Out of the sky, comes one of the space parasite eggs.



24. Which crashes into the surface of the planet, leaving a deep crater



25. The large egg is still, almost lifeless



26. The [illegible]



Princes of Pleasure

After a decade in the edutainment and multimedia wilderness, Brøderbund is attempting to recapture the kudos it once boasted as a pure games developer. Will its new slate of titles do the business?



***Take No Prisoners* uses sprites laid over polygon backgrounds to create an action-heavy experience**

Anyone not familiar with the world of point-and-click adventures could be forgiven for thinking that Brøderbund was an extreme right-wing terrorist organisation from South Africa rather than a top games publisher. But the firm, based just over the Golden Gate Bridge from San Francisco in a quiet town called San Rafael, has published one of the most successful games of all time – the granddaddy of point-and-clicks, *Myst*, which to date has shifted over three million copies.

In the 1980s, Brøderbund's status as a games publisher was assured, thanks to classics like helicopter shoot 'em up *Choplifter* and Arabian platformer *Prince Of Persia*. But after a decade spent raking in the profits from *Myst* and mega-successful edutainment titles such as *Carmen Sandiego* and *Printshop*, Brøderbund is returning to its roots as a new pure games brand, with global ambitions to compete once more with the world's top game publishers.

As Brøderbund's vice president and executive publisher **Ken Goldstein** explains, the company's story has been dictated by some unforeseen successes. 'In 1985, two things happened to the company – *Printshop* and *Carmen Sandiego*. We had no idea they would become a substantial business which would drive us for ten years. Then we had *Myst*. We launched it with modest aspirations on the Mac, and three million units later realised we were in the entertainment business. Then the business started to flatten. About one-and-a-half years ago, we looked at it and asked: "Where's the growth area?" The only area we could see growing steadily was the entertainment category.'

Having decided to refocus its energies on games, Brøderbund took the radical step of launching a whole new





***Warlords III*, from Australian codeshop SSG, allows up to eight players to take part simultaneously – and without the delays such play would normally bring**



Read it backwards and it all becomes clear...



The coin-op version of one of Brøderbund's classics, *Choplifter*, set the company on a roll

brand, the cleverly named Red Orb (read it backwards). 'The categories we're most interested in are adventure and storytelling, strategy games, and action,' explains Goldstein. 'I don't think you can be in the entertainment market and not in the action market.' Red Orb's line-up so far, in order of release, consists of *Warlords III* (a turn-based strategy game from Australian developer SSG); *Riven*, Cyan's massive 3D-modelled follow-up to *Myst* (see Cyan profile, p22); *WarBreeds*, a realtime strategy game developed in-house; *Take No Prisoners*, a three-quarter-viewed shooter developed by Raven (of *Hexen* fame); and the high-tech time-travelling point-and-clicker *Journeyman Project 3*, developed by Presto Studios.

***Take No Prisoners* is** surely the most important game in the Red Orb portfolio, underlining Brøderbund's drive to realign itself as a proper games company rather than a purveyor of kids' multimedia. A full-on shooter with an unusual three-quarter top-down view, it doesn't stint on gore or weapons (the armoury includes a 'Star Wars'-style lightsabre). Although the view is pretty much fixed, it uses 2D sprites which are superimposed on a 3D engine, giving an unusual impression of vertical depth. Developer Raven, acclaimed for its work on *Heretic* and *Hexen*, has a real reputation when it comes to creating shoot 'em ups, so it would be a big surprise if this turned out to be a dog.

Steve Schreck, producer on *Take No Prisoners*, is keen to point out what sets the game apart from the many shooters on the market. 'It's set in a post-apocalyptic world, in which you play a character called Slade, who is out on his own. You have to travel around the city, fighting factions of mutants called Zoners. It has a story element, a strategic element, a puzzle-solving element and lots of fast action. The Zoners range from prison psychos to normal people such as yuppies, nerds and cultists, all of whom are trying to fend for themselves. Whereas in something like *Doom* or *Quake*, you can only play one level at a time, here you can, for example, go from the prison and walk across the street to the hospital. It may not help to defeat what's in the prison if you go round the hospital first, but at least you can explore. The Slade character has 360 different frames of animation and there are 21 weapons and 22 different enemies. Plus, there's a significant multiplayer component with six different games, including a deathmatch, cooperative play and assassin mode. There's a much more strategic component to top-down games than is possible in first-person efforts.'

Humorous touches abound – the yuppie characters, for example, are armed only with tennis racquets, and if Slade is left standing for a certain time, he scratches his head and lights up a cigarette.

Take No Prisoners is slated for a November release, on PC only, and although equipment demands will probably be slightly higher than those of *Quake*, a 3D graphics card shouldn't be required to get it up and running effectively.

> ***WarBreeds*' insane plot combines with some surprisingly good graphics to make a wargame that stands out**

***Warlords III* may be** from the same mould as the likes of *WarCraft II*, but its producer, **Dexter Chow**, reckons it contains enough innovations to make it stand out. 'Although it's turn-based, with probably up to eight players participating, it has simultaneous turn-resolution. At the beginning of each turn, any player can move in any direction, pick any stack and attack.' This, claims Chow, removes the perennial problem of waiting around while everyone else does their stuff.

'It has a full set of campaigns with cut-scenes, reward screens and so on, and a random map, if required,' Chow adds. 'It has three levels of AI which can be set so that the computer knows only what the human player knows. You can also set a time for the turns, and you can customise the starting points so that, say, each side has 1,733 points to spend. For guys who are getting good at the game, there are 12 scenarios, each with a storyline. There are over 30 spells, but spell management isn't a burden.' ▶

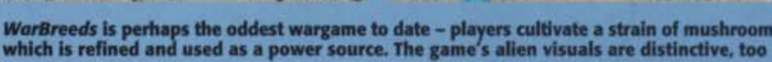


In keeping with its predecessors, *Warlords III* has a fantasy theme








***WarBreeds* is perhaps the oddest wargame to date – players cultivate a strain of mushroom which is refined and used as a power source. The game's alien visuals are distinctive, too**



The PC wargame scene has never been so active, and *Warlords III* will be coming up against some big-name rivals, including Blizzard's *Starcraft*

Typically, the object of *Warlords III* is to start with a single city, explore and conquer surrounding cities, and establish an economic base. The game is set for release in August, and looks to be another promising PC example.

***WarBreeds* might** sound similar to *Warlords III*, but it's a very different proposition. An endearingly weird realtime strategy game, it's rather like *C&C* with an involved plot concerning different alien races, genetic engineering and even mushroom-growing.

'It takes place on Aeolia, an alien planet in a far-off fictional galaxy, where a clan called the Yedda lived,' says **Alan Wasserman**, the game's lead developer, in an attempt to explain the plot. 'The Yedda genetically engineered intelligent species, and the fourth race it created – the Magha – killed off the other three, and the Yedda died out. You can play as one of the clans – the Tanu, the Sen-Soth, the Kelika or the Magha – fighting against the other three. The oneplayer game has two campaigns – the good guy, where you play the Tanu fighting the other races, or the bad guy, where you start off playing the Magha but eventually team up with one of the other clans.

'Each clan is made up of shamen and combat units. Typically, you start with only a few shamen, which must build a base. The basic power source is mushrooms, of which there are three different types – pods, spores and weeds. You plant mushrooms, and build a refinery, which gets you power. You can also build relay towers, which extend your power zone. You can customise the combat creatures with biotech gizmos like circular saws and missile launchers. When you kill enemy creatures, you can send your shaman down to collect genes from them. You can also squash your own corpses to stop enemies from collecting your genes.'

Though it might sound as though Wasserman has been doing too many mushrooms, this insane plot combines with some surprisingly good graphics to make a strategy game which stands out from the identikit masses and has some involving gameplay twists. As is essential these days, there's a cooperative gameplay mode (up to eight people can play via a LAN or the Internet), and the different clans have some interesting attributes. The Magha, for instance, can turn invisible, and while the bovine Kelika are slow-moving, they can pack a fearsome amount of firepower. *WarBreeds* may sound a tad weird, but if its gameplay lives up to expectations, it could be a cult hit.



As anyone who knows the world's game development scene will be aware, America's north west coast is a rich source. Brøderbund is based here, in the town of San Rafael



***The Journeyman Project 3* uses an innovative method in allowing players to explore its extravagant locations**

The Journeyman Project series of futuristic point-and-clickers has had something of a chequered history. The first game, which set a new graphical standard, sold around 500,000 copies, which sounds impressive until you consider that about half of these were dished out in bundles with early MPEG cards, most of which were notoriously reluctant to work properly. Regardless of whether it was any good, it was too far ahead of the available hardware when it was released. *Journeyman Project 2* disappeared without trace, partly because it was published by the obscure Sanctuary Woods and partly because of exorbitant pricing. But Red Orb is determined to make a success of *Journeyman Project 3*.

Steve Schreck, who is also *JP3* product manager, is aware of the weaknesses of previous *Journeyman Projects*, yet believes that developer Presto Studios can make it third time lucky. 'We've known Presto for quite a while and saw that there were some really good aspects to their products. The consensus was that the things that weren't good were easily fixed. Presto have some really good puzzles, and what is rare is that they integrated into the story very well. The problems in *JP2* mainly involved the interface – there was a lot of stuff but nothing interactive that you could click on, the inventory was cumbersome, and although you were focused on the screen, you were navigating using controls outside the screen.'

Journeyman Project 3 uses instead a set of fully modelled 3D environments (with 2D characters superimposed), and an innovative *QuickTime VR*-style navigation system which lets players look up or down depending on whether the cursor is above an equatorial mid-point of the screen. Brøderbund will not reveal whose 3D engine technology this uses, but it is certainly an elegant means of controlling the character precisely using just one mouse button. The game is set in three impressive environments – Atlantis, Eldorado and Shangri-La – and has a convoluted time-travelling plot explained with the



(From left) Richard Vanderwende, Robyn Miller and Rand Miller are the creative forces behind Cyan. The company's first project, *Myst*, paved the way for point-and-click adventures. Its next venture could by a similarly sized success

help of cut-scenes. The player's time-travelling suit makes it possible to take on the personas of the characters encountered in the game – indeed, assuming the right identity is vital to solving many of the puzzles.

Likely to appear in early 1998, *Journeyman Project 3* will certainly be a cut above the average point-and-click game. There's no doubt that it looks great and is about as interesting to play as such games can be. Not one for those who crave shooters, nor likely to be a bona fide classic, it should nevertheless be able to atone for the previous, rather limp *Journeyman* games.

With this solid portfolio and the likely blockbuster, *Riven* (of which more later), Brøderbund looks like it means business with its return to the games world as Red Orb. It is about to emphasise this with a free online gaming area, and is aggressively looking to sign up new developers and build up in-house development teams. If Brøderbund/Red Orb's journey back to its roots can produce the spiritual successors to the likes of *Choplifter* and *Prince of Persia*, it will certainly have been a worthwhile exercise.

Hidden away in an obscure place called Spokane, close to the Canadian border in Washington state, is a small game development house called Cyan. A quick tour around the charmless town suggests that Cyan is not like other developers. This is not the sort of place where you'd find John Romero or his ilk posing around in slinky Ferraris. The local paper advertises Clothing Optional Bingo at the Millwood Masonic Lodge, which conjures up visions of handshakes going beyond funny to bizarre. It's the sort of place you go to in order to shoot grizzlies or indulge paranoid conspiracy theories by setting up a far-right militia movement. Nestling in a pine forest on the edge of town is Cyan. This small developer, run by brothers **Rand** and **Robyn Miller**, is hardly prolific – it has only ever released one game. Yet that game, *Myst*, is one of the most successful games in history, having shifted over three million Mac and PC copies, and is *the* classic point-and-click adventure by which all others are judged. It has also been described as a game for people who don't play games, but few of its peers can boast such a determinedly obsessive fan base. The Miller brothers and their right-hand man **Richard Vanderwende** (an ex-Disney employee responsible for the film 'Aladdin') are attempting to harness the technological advances which have been made since *Myst* first appeared and craft another legendary chapter, which will be called *Riven*.

The most immediately obvious trait of the Cyan clan is that they are perfectionists, pursuing their goals almost to the point of obsession. Uniquely, the company refused an advance from Brøderbund when it started developing *Riven*, in order to retain total control, ploughing the money it made from *Myst* back into its successor. This has, inevitably, created a few frictions between developer and publisher, but Brøderbund is a more enlightened publisher ▶

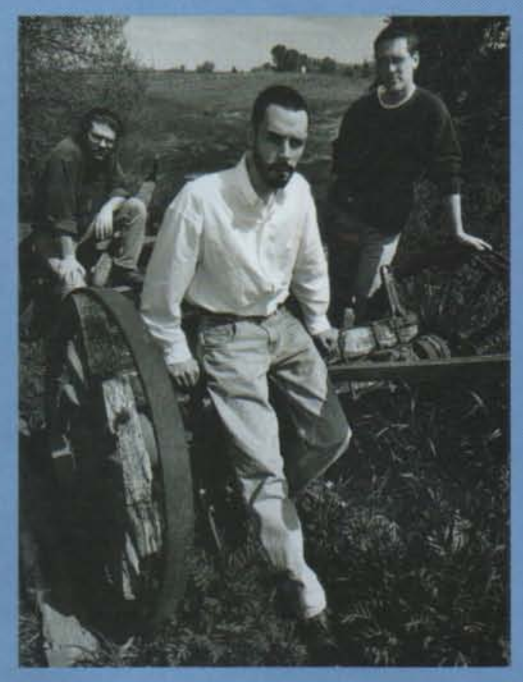


***Riven* is Cyan's follow-up to *Myst*. The games' creators, Rand and Robin Miller, have been busy investigating technology since their debut title**





Riven **is one of the most graphically heavy games ever, with countless polygon models crafted in *Softimage***



Cyan refuses to toe the corporate line, refusing a cash advance for *Riven* in order to maintain total control

than most and has unshakeable confidence in Cyan. The Miller brothers certainly don't talk like your average developer. Here's Robyn, for example: 'We're not doing this just because we want to make money. We want to create something and express ourselves.'

'Up here we can just focus on work, eliminating the outside influences which are so detrimental,' says Richard Vanderwende, explaining the company's unusual location. Cyan's isolation has indeed bred a very individual visual style, as Robyn explains: '*Riven* is less influenced by Western culture. We drew on thinks like African, Arabic and Celtic cultures and blended them together.'

'I think one of our strengths is that we don't play

'I think one of our strengths is that we don't play games, so we aren't then subject to being influenced by them'

games, so we aren't then subject to being influenced by them,' says Vanderwende. This no-compromise approach is mirrored in the visual aspect of *Riven* (sadly, **Edge** can't comment on the puzzle content, as Cyan is maintaining a Fort Knox-like screen of secrecy around it). Fully 3D-modelled and animated in *Softimage*, it looks gorgeous – but then that is to be expected from a game spread over no fewer than five CDs. The attention to detail is stunning, with all manner of arcane computer-generated machinery, such as drawbridges which flex as they fall into place and spherical clocks which rock when they're clicked upon. *Riven*'s screens and animations, unlike those of *Myst*, will operate fullscreen and require at least 16bit colour.

'By not going with a *Doom*-like engine we bought ourselves a lot of detail,' says Vanderwende. 'We took a load of SGIs and pushed them to the limit. For example, we created an island, but something wasn't right with it, so we called Softimage tech support. They asked how many polygons were involved and when we said about a million and a half, the tech guy nearly had a heart attack. They had to write a special patch for us.'

Given the freedom bestowed by technology unavailable in the days when *Myst* was made, as well as more time for deliberation, Cyan has addressed a number of criticisms levelled at *Myst*. 'We realised there was a weakness when you got to Myst island,' confesses Vanderwende. 'Some people stopped playing because they didn't get off the first island. In *Riven*, people have a lot of territory to explore before they encounter that initial hurdle.'

'Immersiveness is *the* word,' adds Rand. 'We want people to be in a dark room with big speakers so that if people come up and tap them on the shoulder, they've forgotten they're in the real world.'

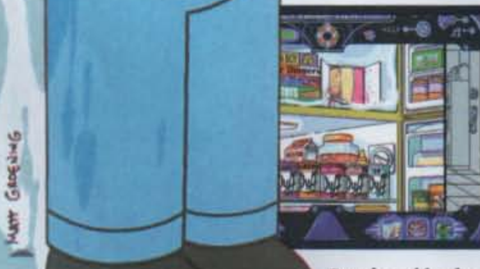
It remains to be seen how well *Riven* will play. When quizzed about its puzzles, Rand would only say: 'It's difficult, because anything you explain takes away some of the reward.' However, Vanderwende ventures: 'There's more of a cross-referencing aspect to the puzzles in *Riven*. You still come across devices that you have to deal with, but there's also a more global aspect to the puzzles.'

It's likely that the game's appeal will span age ranges and genders and appeal to hardcore game fans as well as non-gamers. 'As far as we could tell, from the beginning, *Myst* was accepted really well by gamers,' asserts Vanderwende. 'I think any backlash has arisen to some extent because it has been so successful.' If its gameplay lives up to expectations, *Riven* could achieve the across-the-board success enjoyed by *Myst*.





A mixture of African, Arabic and Celtic cultures apparently influenced the style of *Riven*. The result is a game that is very much its own title







Developed in close conjunction with Simpsons creator Matt Groening, *Virtual Springfield* offers thousands of frames of cartoon-like animation and a fully navigable environment to explore



GAME AND WATCH

IN THE PAST, THE TWIN DISCIPLINES OF TV AND VIDEOGAMES HAVE SEEMED MUTUALLY EXCLUSIVE. FOX, HOWEVER, IS ONE COMPANY THAT IS STRIVING TO STRADDLE THE DIVIDE...



Virtual Springfield includes 36 activity scenes which allow the player to interact with a vast range of unsavoury regulars from 'The Simpsons'

Film companies have a problem with videogames. They have spotted a lucrative market which is increasingly influencing their own output, and they want to get involved, but for some reason it often just won't work. Time Warner, for example, bowed out of the software scene last year, having released little of merit, and Spielberg's Dream Works arrived with huge fanfare but then came up with *Director's Chair* and everyone suddenly lost interest. Fox Interactive, however, is a survivor.

This is, of course, not unsurprising considering the wealth of TV and film licences the company has available for plunder. One of the most profitable of these is America's most dysfunctional family, the Simpsons, who have already found their way into several games and multimedia products over the last five years. *Virtual Springfield*, due for the PC in



There are dozens of locations in *Virtual Springfield*, each inhabited by well-known characters boasting random animations and speech loops





Moe's Tavern (top) will no doubt provide a salubrious location for *Springfield* players

late September, is a '3D exploration' of the Simpsons world in which the player roams around the town dropping in on famous landmarks and characters.

Although this sounds like quite a straightforward venture, producer Gary Sheinwald assures **Edge** it wasn't. '*Virtual Springfield* was daunting because, after eight years of production, with dozens of different writers and no "bible" to work from, we had to make sense of the Simpsons universe. Since there are sets like a regular sitcom, the show's creators will change "reality" at the drop of a hat if it makes a gag funnier. For example, in some episodes, Springfield is landlocked; in others, it is by the sea and has a port. Also, the Simpsons house has had three addresses over the course of time. So we decided early on to model the most "normal" version of Springfield. When Matt Groening saw the map, he was amazed – nobody had ever done that before.'

To accompany the realism of the town plan, there are apparently 36 'activity' (ie game) screens, and each of the locations boasts interactive elements, making this more than a kind of 3D Simpsons encyclopedia. However, the product will have its work cut out capturing the essence of the show as well as Fox's brilliant *Simpsons Cartoon Studio*. The interactive elements, for example, will have to be numerous and well-devised to lift this above standard multimedia fare, and there will need to be plenty of Matt Groening humour to keep punters amused for longer than half an hour. Fortunately, Sheinwald told **Edge** that these criteria have been met, which should make this an essential purchase for Homerphiles.

MATT GROENING

Another successful, if slightly darker, Fox TV show is 'The X-Files', which is due for two computer interpretations over the next 12 months. While a later title will be appearing at some point in early '98, this October should see the Mac/PC release of *X Files: Unrestricted Access* – an intriguing hybrid of adventure game and reference CD-ROM.

The premise is particularly novel. The CD contains masses of 'X-Files' info, audio clips, sounds, narratives, character dossiers, etc, but players cannot access these in a straightforward 'reference tool' manner. Instead they must act as FBI agents, rooting out information for themselves in a series of non-linear storylines. The basic plot is that Mulder and Sculley have disappeared and it's up to the player to find them.

The idea, of course, is to make players feel as though they are taking part in a real life X-File. To this effect, *Unrestricted Access* includes things like fictitious e-mails (which are 'sent' to the player throughout the 'game' by mystery sources) to heighten the spooky atmosphere. This interactive element is accentuated by the inclusion of simulated FBI computer tools such as waveform players, voice matching and fingerprint analysis, which the players can use to gain further information.

Fox is revealing little about actual gameplay mechanics at the moment, but

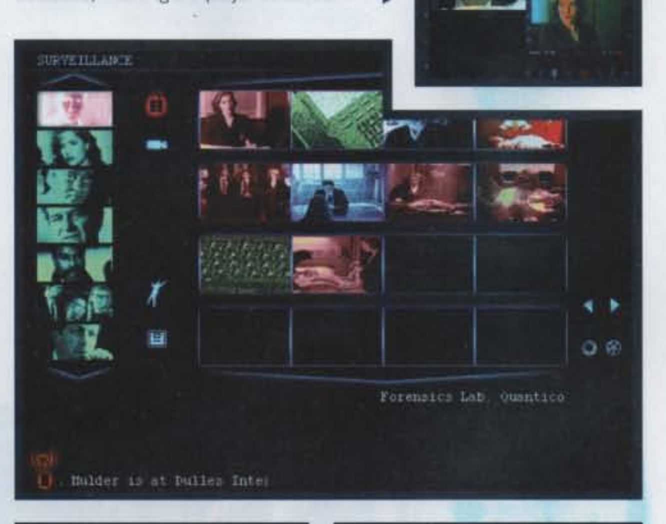




Bart's heroes Krusty the Clown (top) and Itchy & Scratchy (above) star in interactive sections

The interactive element of X-Files: Unrestricted Access is accentuated by the inclusion of simulated FBI tools

it is clear that the player interacts with the action entirely through a fictional computer interface (ie users don't control figures through a 3D world, they simply imagine their computers are attached to some shadowy FBI network). Information becomes available through three different routes: Search, Surveillance and Communication. The first is an in-game database, allowing the player to access ▶





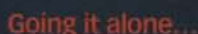


Audio and visual effects from 'The X-Files' are used to heighten the atmosphere and make *Unrestricted Access* seem more than a videogame





No screenshots of *Aliens vs Predator* have been released, but early artwork hints at plenty of fisticuff action





Formed soley as a licensing and merchandising division, Fox Interactive made the decision to publish and develop its own products in 1995. To oversee this transition, Fox employed Disney executive Jon Richmond (above), who had a clear idea of how the company would survive in a difficult market. 'Our goal was to separate ourselves from other studios who relied soley on their content and the ability to license that content to others for their presence in the games market,' explains Richmond.' We established Fox Interactive as a publisher in order to compete with industry leaders. We also wanted complete control of the design and development process to ensure the quality of the products. I think *Alien Trilogy*, *Die Hard Trilogy* and now *Independence Day* have cemented our place among the leaders of the software industry. It was critical that we fight to eradicate the somewhat well-deserved old paradigm that movie games are crap...'





Though it cribs elements, *Croc* retains its own sharp, distinctive style

case files and evidence records, the second lets them place certain characters under surveillance and receive reports on their actions, and the third is actually an online hook-up which downloads information from the Net and also allows players to regularly update the CD info as further TV episodes are shown.

In many ways, *X-Files: Unrestricted Access* can be compared to Activision's entertaining covert operations romp, *Spy Craft*, in that it offers the player a glimpse into a world of espionage and secrecy. Even if the interactive elements do not convince the player this is a game, rather than an 'X Files' encyclopedia with a fancy interface, at least Fox is attempting something new and interesting here, something which may contribute toward a whole new genre – the online multimedia encyclopedia arcade adventure. Bit of a mouthful, but it could catch on...

Still on the money-spinning sci-fi theme, *Aliens vs Predator* is currently being developed by Rebellion and should be out at Christmas for the PC, PlayStation and Saturn. Predictably, it's a firstperson shoot 'em up in which the player can take on the role of Alien, Predator or Special Forces marine, each of which requires different mission objectives. In a similar vein to Probe's *Alien Trilogy*, the action is set in an underground research complex on a distant planet where Aliens and Predators – bred by the US military as weapons – have escaped and are running about the labs killing people and generally making nuisances of themselves.

Although the idea of an underground base doesn't sound too promising in terms of scenic variety, there are apparently plenty of different environments, such as hangars, isolation labs and nuclear power sites, many of which contain booby traps to make things more interesting. There is also an abundance of weapons, including the obligatory flame-thrower, grenade launcher and rifle, along with more exotic items like gas canisters and demolition chargers. On top of that, predators have infra-red vision and invisibility, and, most interestingly, Marines can employ pheremones to attract or repel aliens.

As yet, no screenshots have been released, but the game does sound more intriguing than earlier incarnations of the *Aliens vs Predator* licence (released on the SNES and Jaguar). Interestingly, the designers promise an emphasis on strategy as well as mindless blasting (Aliens, for example, have to establish a colony, gather hosts, etc), and the PC version comes with various network options allowing players to team up against the other species, or fight each other. Hopefully, the visuals will keep up.

Away from dark sci-fi and, indeed, away from lucrative TV/movie licences









The apparently fully explorable 3D world allows Croc to swim, swing on ropes and climb. The character's ultra-cute animation is excellently done



Unlike other 32bit platformers, *Croc* apparently presents an open 3D environment, rather than a few polygons flouncing about an essentially 2D world











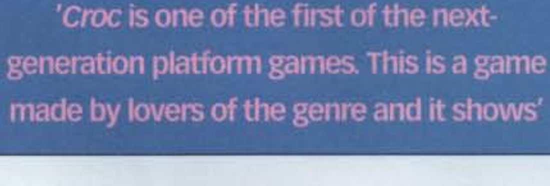




The main character and much of the scenery are clearly inspired by the works of Miyamoto

altogether is *Croc*, a highly promising 3D platformer currently in development at Argonaut and due for PlayStation release in September, Saturn in November and PC in December. Here, the player guides a cute crocodile around six different landscapes, collecting crystals and jumping on baddies. Within these landscapes are 40 levels, but completing the game reveals another 20 secret ones.

On a basic level, this will probably be labelled '*Mario 64* meets *Crash Bandicoot*'. The landscapes and characters – cute, colourful, simple yet wonderfully designed – owe more to Miyamoto's masterpiece, especially considering the truly 3D look of the game. This is no accident, perhaps, as Argonaut worked with Miyamoto on the production of *Star Fox*. Certainly, *Croc* shows that Argonaut has an aptitude for character design – Croc, with his brash colouring, wide eyes and Mario-esque



yelps and cheers, is a successful emulation of the perennial Japanese style.

The influence of *Crash Bandicoot* is most evident in the character's interaction with his background. In *Croc* it's possible for the player to jump up on wooden crates to smash them and reveal random goodies – a device that could have been taken straight from *Crash*. On top of that, a Croc tail-swipe dispenses with baddies in much the same way as *Crash*'s manic spin did for his foes. Again, though, this game seems to offer more diversity – Croc can climb, swim, swing on ropes, and when he jumps onto a platform he often has to haul himself up.

Croc, then, looks like making brilliant use of standard platform visuals and gameplay themes (like end-of-level baddies, power-ups, etc), while combining them with a few of its own touches to create a potentially massive title. Producer **Dave Stalker** is certainly confident of its strengths. '*Croc* is one of the first of the next-generation platform games. It is born of thoroughbred stock with a lot of new twists that the wisdom of age brings. This is a game by lovers of the genre and it shows.' It is certainly an important game for Fox, not just because it looks so promising, but because it's the company's first release not to be based on a TV or film licence.

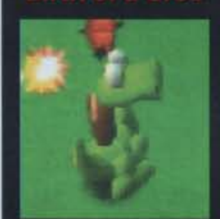
All in all, Fox Interactive obviously has a sound business head on its shoulders, but it also has a creative agenda. This will serve it well in a cut-throat industry where consumers are becoming cynical of big-name brands. Richmond is well aware of this. 'Most film companies have followed a formula that the property will sell the game. This is absolutely false. Games are about playability, cutting-edge graphics, showing off hardware, and fun – the underlying property is only a source of inspiration. It is this latter approach which has worked well and continues to do so for us.'





The six scenic styles – including haunted castle and underwater – mix childlike simplicity with surreal fantasy, and reflect the game design philosophy of Nintendo

Birth of a Croc



As Fox Interactive producer Dave Stalker points out, *Croc* is a title with a rather unconventional history. '*Croc* began life three years ago with an original concept for a dinosaur multiplayer racing game! At the same time, Argonaut's research and development group developed a system which they felt could deliver a full 3D game at 30 frames per second which would give players unprecedented freedom to explore a world. These two ideas were brought together and a team began work on *Croc* in October '95, well before we'd seen anything of *Mario 64*.'

Even when a 3D platform game was decided on, the lead role still remained to be cast. 'Various characters were suggested as the star,' says Stalker, 'including dinosaurs, hippos, rodents, aliens… and a youthful, one-toothed crocodile. Croc was the pick of the bunch.'





The evol

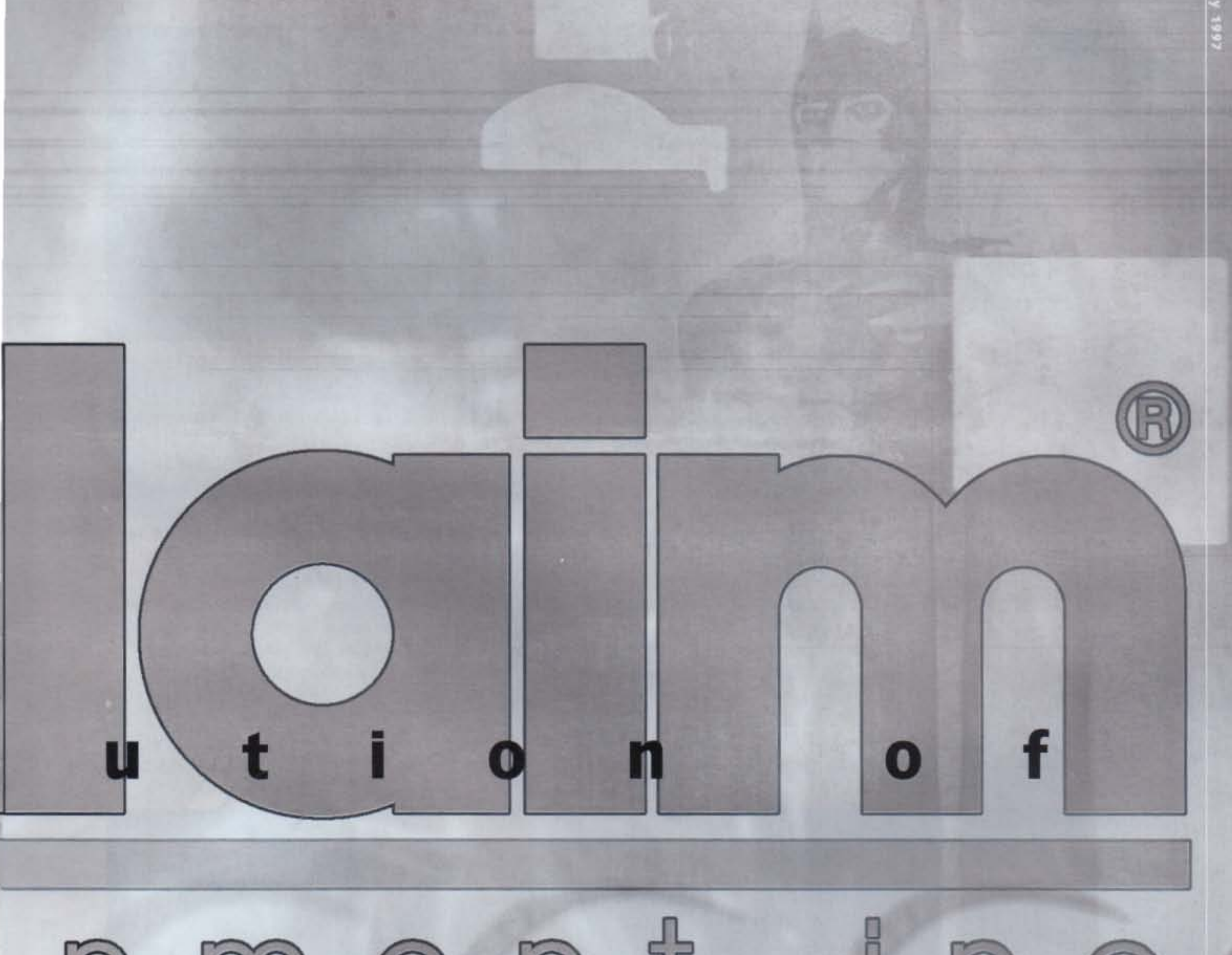
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It has had the best of times, it has had the worst of times. Acclaim, one of the biggest names in the business, is lucky to be alive. Larger and larger risks, larger and larger investments and ever more lavish spending plans have transformed a half-a-billion-a-year entertainment giant from a success story into a cautionary tale.

In September last year, Acclaim Entertainment plc announced record-breaking losses to a shocked stock exchange. The shares went into spontaneous freefall and the company felt the heat from thousands of irate shareholders, who stared in disbelief as their sure-thing silicon dreams turned to dust. The reason? The 16bit market collapsed just as Acclaim released one of its poorest movie licences to date: *Batman*.

It's hard to recall many decent-quality licensed games, but it's equally difficult to think of any that didn't make a profit. Most (including previous Caped Crusader outings) were a licence to print money. However, as Sony launched its PlayStation, the kids unceremoniously bundled their Segas and Nintendos under the bed to gather dust and a rumoured half a million *Batman* cartridges were left to rot. Most were returned, unsold even at discount prices.

Of course, there's a lot more to it than the failure of one game. Top-heavy management and the spiralling costs of feeding an organisation the size of Acclaim had been sucking the coffers dry, with no new games to balance the books. Acclaim was caught napping when the 32bit dawn broke, and as the PlayStation gathered pace it suddenly became glaringly obvious that the giant of the 16bit market was in no shape to compete in the next generation. Acclaim decided to buy its way in with acquisitions, and Probe,



Sculptured Software and Iguana were snapped up to form Acclaim Studios. With its varied expertise and ready-made PlayStation and N64 projects, this trinity was to be the way forward. What the shareholders – and the Dow Jones – hadn't banked on was that development takes time, money and patience. Adding up the price of buying the studios and the investment needed to bring the projects to fruition left a hole in Acclaim's profits to the tune of almost $220m.

Although it is not completely out of the woods, things are looking up for Acclaim. The first tree to bear fruit was Iguana, whose *Turok: Dinosaur Hunter* put Acclaim on the road to recovery. Once the preserve of the PC, the firstperson genre has taken a step forward thanks to the open maps and stunning realism of the *Turok* world – a game that has undoubtedly changed not just the common perception of the console as a limited gaming medium compared to the PC, but altered the way in which developers regard the Nintendo 64. It shamed PC golden boy LucasArts, its speed and detail leaving *Shadows of the Empire* looking particularly wanting. *Quake*, previously regarded as the one thing consoles couldn't do, suddenly seemed like nothing more than a technology demo compared to the sweeping levels and intuitive controls of *Turok*.

Acclaim's fortunes have now changed. The dinosaur that was regarded as extinct has now been found to be very much alive, thanks to Probe, Sculptured and especially Iguana, the company founded by a handful of dedicated Brits in California in 1991.

Edge visited the studios to find out whether the new commitment to internal development can help Acclaim raise its game and realise its goal: to be the world's number one software publisher.

IGUANA (US)

Few companies can boast of beating Nintendo at its own game, but a small Texas-based outfit has managed to surprise even the Japanese giant with its first N64 title



Iguana's Austin HQ is described by other studios as 'The Palace'. The corporate black-glass exterior belies the comfortable, airy interior. Everything inside feels new, and everything, from the purple-patterned carpets to the frosted glass (patterned with mock lizard scales), reeks of self-made success.

There's a self-assuredness here, an almost tangible confidence. It seems to be on tap, distributed by the air conditioning that runs throughout the building, keeping the oppressive Texan heat at bay. The feeling owes much to what most European audiences would describe as an 'obscure' comic. 'Turok: The Dinosaur Hunter' has been around since 1954, sharing shelf space with another of Acclaim's properties, 'Batman', but few would argue that it is anything like as popular. Fortunately, *Turok* the game doesn't need any help to sell it to a public eager not just for more quality titles but for anything that will adequately demonstrate the power of the N64.

One of the key people involved in the creation of *Turok* is project leader **Dave Dienstbier**, who occupies a chaotic-looking office in the *Turok* wing of the building. He believes the game's appeal lies less in left-field licence deals than in the simple art of creating a believable gameworld.

'The idea with *Turok* was to take the firstperson genre and open it right out,' he explains. 'We wanted to get away from the whole cramped, maze-like structures that just about every other game of that kind was trapping the player in. We wanted to create a world that felt real, without constraints. In



Greg Fischbach, Acclaim CEO, and Jeff Spangenberg (president of Iguana US) outside Iguana's Austin HQ

a typical *Doom*-style game, you're running through endless grey corridors, but in *Turok*, you're hearing birds and monkeys squawking, trees blowing over, ripples in the lakes and fish swimming around. In other words, there's nothing there that doesn't convince you that this is a real world.'

That real world was originally conceived in 1994, some six months before Iguana's sale to Acclaim. At the time, *Quake* was still only a twinkle in the eye of *Doom 2*. Likewise, Core's *Tomb Raider* project was still awaiting the green light. The definitive N64 title, *Super Mario 64*, was in development, but Iguana would have had no access to the Nintendo team or their groundbreaking 3D









Dave Dienstbier and his *Turok* team (right). Matt Stubbington works on the enemies for the N64 sequel to *Turok* (top)









Though at this early stage (just 16 weeks into the development cycle) there is little to be seen, these concept sketches give some inkling of how the sequel to *Turok* might be themed. The sci-fi alien influence will be heavily in evidence

routines. At the time of the sale, in January '95, the company was working, as many Dream Team members were, with an Onyx emulation system which was actually simulating a machine well below the eventual N64 spec. It wasn't until the full dev kit arrived that the *Turok* project really began pushing back the boundaries, not just graphically, but in the sheer size of its levels, which many doubted would even fit onto cartridge.

Towards the end of the project, Dienstbier and his team laboured day and night to squeeze as much as possible onto the 64Mbit cart. Inevitably, a number of ideas had to be shelved, most notably the Brachiosaur – a dinosaur that appeared in all the press material, and even early versions of the cart, but which found itself on the cutting-room floor because the sheer size and complexity of the model ate up valuable chunks of memory.

'By the time we got to the end of *Turok* we were literally scraping around for one or two kilobytes, just to pack everything in,' confesses Dienstbier.' I mean, there's not a single byte of free space on that cart – not one! Sure, we had to make a few sacrifices, like the Brachiosaur, and another dinosaur we called the 'Mosschops', but you have to work within those limitations. You can run into that eight-megabyte wall pretty quickly when you're creating a world, and we ran into it doing about 90 miles per hour with *Turok*.'

To many, it was something of a mystery how a game so huge had been squeezed onto an 8Mb cart. The detailed textures and sheer size of the levels are at least equal to *Mario 64*, which had all the benefits associated with its status as an in-house Nintendo project. It seemed that Iguana has got to grips with the machine as quickly as those who designed it. The secret, claims lead programmer **Rob Cohen**, is ruthless compression. The routines used are well ahead of those used by the competition, thanks to a team dedicated to compression algorithms. Iguana is making such strides in this direction that it expects *Turok 2* to be fully 40% bigger than the original.

'The bottom line is that the N64 is a fantastic piece of hardware and very well designed,' Cohen asserts. 'However, it does take a lot of work to get the kind of results we achieved with *Turok*. This is due in part to the fact that the development kits come with a lot of very low-level libraries which, while very well designed, take a lot of work to really make the most of.'

Perhaps the only criticism levelled at the game on release was that its clipping left a lot to be desired. The draw distance was so short that to avoid pop-up, a thick fog permeated the levels, bringing visibility down to 100ft and raising some questions about the true power of the console.

Cohen feels such criticism is unjustified. 'Every piece of hardware has a performance benchmark. The issue is making the best use of that latent potential. The far clip distance – or fogging – in *Turok* was really not an N64-related issue at all but the result of the performance standards we set for the game. Having finished *Turok*, we set new benchmarks in graphics, design and performance.'

All of which

bodes well for the sequel. *Turok 2* (working title) is currently just 16 weeks into development. At this stage, the plot has been written, the enemies have been drawn and many of the levels are in the final stages of pen-and-paper design, but there's very little to see of the game itself, which probably helps to explain the confident mood. After all, at this stage nothing has gone wrong, and the team is still bathing in the light of the gushing praise lavished upon *Turok*. Both Cohen and Dienstbier are predicting few problems, however – all you'll hear from them is a simple mantra of 'bigger, better, more'.

The plot is really the key to imagining how the finished game will look. As with *Turok*, the action is ▶

Comic hero

The 'Turok' comics have been around since 1954; they're now published by Acclaim's own comics division. On the page, Turok unfortunatley comes over as a cross between He-Man and Tarzan in Ray Bans...

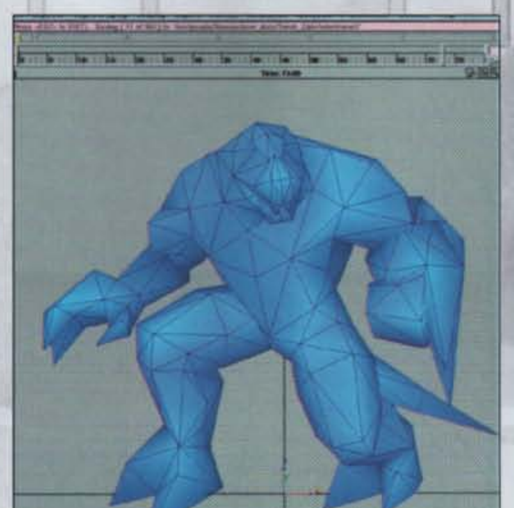




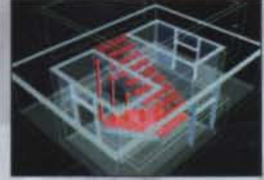












The creatures and level designs in *Turok 2* will be something of a departure from the original, boasting greater detail than before









Turok PC is sure to shake things up when it arrives in September. The 3Dfx card supplies N64-style graphics, only in higher resolution. *Quake* certainly never looked this good...

◀ set in The Lost Land, a collection of jungle, cliffs, caverns, temples and future-tech. The arch villain and final boss has been replaced with an alien creature, the 'Primagen', trapped in the bowels of his long-buried spacecraft. Although he lacks the strength to venture topside himself, his minions can. Many of these will be familiar dino-robots, but a range of new creatures has been created for the sequel, and due to the alien origins of the plot, there should be a far wider variety.

Both Dienstbier and Cohen are remaining tight-lipped about what is perhaps the most important area of the game, level design. When quizzed, they fold their arms and smile, but say little.

'All we can tell you at this time is that we want the levels to be designed in such a way as you can revisit them,' says Dienstbier. '*Turok 2* won't be as rigidly structured as the first game – you won't progress from one level to the next in that same linear fashion.'

What he's suggesting is some kind of hub arrangement or, as someone lets slip in the hallway, 'multiple hubs'. This would yield huge levels, not unlike those found in Raven's PC shooter *Hexen*, which eschewed the usual episodic format in favour of broad maps that radiate out from a central hub. The result is a cohesive environment that promotes exploration and map knowledge above the usual combination of speed and combat. The creatures who would only previously pursue Turok until he was out of sight will also take advantage of the new open terrains, hunting by sound and tracking the player across the maps.

Dienstbier is pretty happy with his new bestiary. In one of the other, darker, offices, he reveals the first creature. Although merely a spinning 3D model obviously dumped onto an early backdrop, it's impressive. The half-man, half-lizard creature is quite a departure from the 'Jurassic Park'-style enemies of the original, and the textures and geometry look as if they have been ramped up considerably, a result of the new creature engine the team developed following its own self-critical post-mortem on *Turok*.

'One of the things that we weren't particularly happy with in the original game was the way we constructed the enemies,' he confides. 'Because the textures were individually applied to each body part, gaps would appear on the joints whenever they moved. It wasn't really a glitch, it was more of a limitation, but it's something we've eliminated for the sequel. Actually, the way we're doing it now actually uses less polygons than before, but it appears as if we've used more.'

Instead of texturing each limb, the new engine throws a seamless texture skin around the creature model, eliminating the telltale gaps that appear every time the monster moves. Although the models used are far simpler, it's a technique that worked well in *Quake*. It allows for fewer polygons,







The detail here should make PC *Turok* as hot a property as the likes of *Unreal* and *Quake 2*. The similarities between the N64's power and that of 3Dfx will make for a close conversion





Turok should lose nothing on conversion to PC. Scupltured has written an N64 emulator to facilitate the conversion to the PC and in some ways, it may even be better. The mouse controls will be similar to *Quake*, and the resolution a respectable 640x480. Lighting effects are perhaps the only area where the PC might struggle

as none are needed to construct the joints, which are disguised by the folding textures. The result is a smoother-looking model, with no glitches or gaps, and fewer noticeable edges. Which is just as well, considering the art brief for the game, which calls for smoother, more organic environments and creatures, in keeping with the alien theme. The early environment that **Edge** witnessed was a smooth, visceral-looking tunnel, lit with an eerie fluorescenct light.

Improved lighting effects will also feature in *Turok 2*, replacing the rather flat-looking light sourcing of the original with dynamic, directional light sources, realtime shadows and coloured ambient lights to add atmosphere. Such effects can require heavy processing, but Cohen believes that the new efficiencies of the 3D engine mean that geometry calculations put much less strain on the CPU. He reveals that the engine was previously rendering hidden polygons, drawing enemies and complex structures that couldn't be seen by the player – an untidy and costly way of doing things. The modified *Turok 2* engine is far more ruthless about what it draws and what it leaves out, which will speed up the engine and allow greater depth of field, pushing the fogging back.

Although the game is still a full year from completion, the modifications to the engine, new level structures and alien theme promise to make *Turok 2* a far broader and more accomplished experience than its predecessor. By then, however, the imitators will be out in force, and it remains to be seen whether the progression of the firstperson genre on the N64 will follow the same pattern as on the PC – gamers should prepare themselves for 12 months of pale imitations, all doing their best to mimic *Turok*'s already considerable success. In the meantime, Iguana will keep the momentum going by releasing another three titles: the PC conversion of *Turok: Dinosaur Hunter*, *NFL Quarterback Club* and *All Star Baseball*.

The PC version

of *Turok* will be a direct port – Scupltured Software has written an N64 emulator to facilitate a line-for-line code translation to PC. After encountering a number of problems without acceleration, PC *Turok* is likely to require a 3D accelerator card as standard. The myriad effects witnessed on the N64 version, such as lens flare, transparent water and filtered textures, combined with the sheer complexity of the dinosaur models, would preclude anything less than a 3Dfx or PowerVR PCX2 card if the game is to run the game anything like its original form. *Turok* could certainly shake up the PC market when it arrives, providing a less claustrophobic alternative to the corridor titles so familiar to fans of id and 3D Realms.

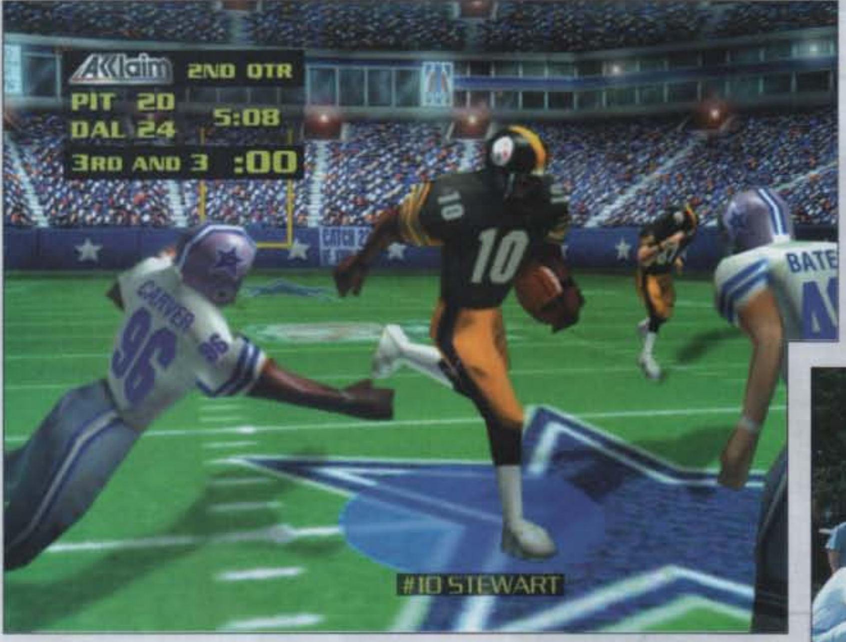
More proof of Iguana's mastery of the Nintendo console can be seen in the imminent American football title, *NFL Quarterback Club '98*, developed by a dedicated team two corridors down from Dienstbier and Cohen. Although also available for PlayStation, it will be the first Nintendo 64 game to run entirely in hi-res mode. The 640x480 resolution puts it on par with a PC, which obviously has far greater storage and RAM resources at its disposal. It's an achievement that has allegedly left Nintendo itself scratching its corporate head in amazement. So how did Iguana do it?

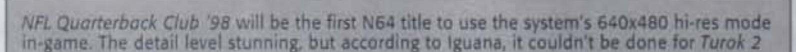
Russell Byrd is project manager for *QBC* and the man in charge of Iguana's sports titles. He realised the first time they viewed the code in hi-res that it was the way it would have to be. 'It just looked so good, we had to try it,' he enthuses. 'Nintendo weren't that keen at first, as they believed it would slow things down. We had to ▶





Turok is huge. Each level uses around 300,000 polys (30 times *Quake*'s) and the entire game area takes up around five million square feet

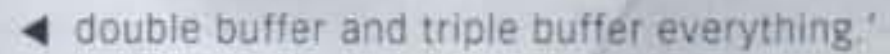



NFL Quarterback Club '98 will be the first N64 title to use the system's 640x480 hi-res mode in-game. The detail level stunning, but according to Iguana, it couldn't be done for *Turok 2*









double buffer and triple buffer everything.'

The engine is a derivative of the one used for *Turok*, which is already fast, but there are a number of added features that make the higher resolution possible. Should the frame rate drop below 30, for example, the game sheds detail from the stadium, and all the player models have dual-detail modes. In the distance, the 300-poly mesh drops to 150, freeing up the RAM for the higher-detail players in the foreground. As with *Turok*, the key to the huge variety of textures (there are some 33 stadia) is the ruthless compression routine developed internally to squeeze as much onto the cartridge as possible.

The secret to running the game in 640x480 resolution lies in judicious use of the N64's four megs of RAM, as *QBC* lead programmer **Brian Watson** explains. 'The great thing about the N64 is that you can use as much of the RAM as you want for graphics, unlike the PlayStation. The frame buffer takes up over half of the four megs, and because the N64 is cartridge-based, we don't have to have all the player graphics in memory. Like *Turok 2*, we're using soft-skin models, which lets us keep the polygon count down.'

The visual breakthroughs made by the team in terms of resolution will not lead to a rash of hi-res games, however. *QBC* is particularly well suited to this mode because it is composed of like data sets (each player uses the same model) and relatively spartan environments. A game like *Turok* would be considerably more difficult because there's so much information that's needed in RAM, such as detailed creature models and animations.




The secret to the hi-res mode lies in the relatively spartan scenery (a pitch and stadium) and player models that share identical geometry

The third title,

All Star Baseball '98, is still a long way off – it is not due for release until early next year. Another quintessentially American title (baseball games rarely do well in Europe), it already boasts a long list of technical innovations. Individual players will have their faces mapped onto the models, as well as having their own unique swing animations and stances, and the game makes good use of a number of realtime lighting effects. As now seems to be the case with almost every multiformat title, the PC version has the lion's share of the special effects, and will, of course, be in hi-res, thanks to 3D cards.

'We're pretty enamoured with 3Dfx,' remarks **Jaime Grieves**, project manager for *Baseball*. 'The chip has a very good library, and it's very easy to program for. We'll be writing a D3D version of *Baseball*, and also a native 3Dfx version, written right to the metal.'

But writing 'to the metal' is becoming something of a trademark for Iguana. Although they're not destined to be as startling as *Turok*, the sports titles are a reminder of how versatile and disciplined the firm can be. It has lost none of the enthusiasm or drive that propelled a tiny expat LA codeshop to the top of Acclaim's must-have list. It's unlikely that *Turok* singlehandedly saved Acclaim, but the game has certainly changed a lot of minds about a company that was once the largest software publisher in the world after Nintendo. **E**





All Star Baseball '98 isn't due until next year. It boasts realtime shadows and is 3Dfx accelerated on the PC

IGUANA (UK)

Iguana's UK arm may not be able to boast the same exotic location as its California-based parent company, but it's got plenty of other things going for it, as **Edge** discovers

Stockton-on-Tees isn't exactly a glamorous location for a videogames developer, but it's a uniquely British one. So many UK developers are hidden away in incongruous northern backwaters like this which are associated more with the industrial revolution than the digital one. And, like many other British developers, Iguana UK grew out of the obsessions of a couple of bedroom programmers, in this case brothers **Darren** and **Jason Falcus**, now managing director and director of product development respectively at the Acclaim-owned codeshop.

The brothers started programming in their early teens and had their first Dragon 32 game published in 1983 by Stockton-based Paramount Software. By 1988, they were confident enough to set up their own company, Optima Software, which produced budget and full-price titles for, among others, Gremlin and CodeMasters. '*Pegasus* for Gremlin was about the best one,' admits Darren. 'We kind of plugged along, but nothing big was happening until 1993.' Then they met Jeff Spangenberg, head of Iguana, who bought a large chunk of the brothers' firm and Iguana UK was born, which went on to produce the excellent 16bit console conversions of the *NBA Jam* coin-op.

When Acclaim bought Iguana in 1995, it was the start of major changes at the UK end of the operation. It moved away from conversions, started on original titles and set about strengthening its management and creative team. 'We've got a really strong team here,' asserts Jason. 'Everybody knows what they're talking about. Project managers have been programmers or artists or designers. Everybody lives for games.' Two of the key personnel recruited were creative director **Guy Miller** and project manager **Simon Phipps**, who both came from Core. The two are responsible for what has become the company's first major original game – *Shadowman*, based on a best-selling Acclaim Comics title, as was Acclaim's N64 release *Turok: Dinosaur Hunter*.



Brothers Darren and Jason Falcus programmed their first game in 1983 (on the Dragon 32) and eventually formed Optima Software in '88, which became part of Iguana in '93





They even look alike. The brothers Falcus are justifiably proud of their latest PC/N64 creation, *Shadowman*. Like *Turok*, it has its origins in a popular comic



Shadowman looks even better than *Turok*, its atmospheric visuals putting it in the same class as current PC darlings *Unreal* and *Daikatana*. The comic on which it is based follows the life and loves of an undead voodoo assassin...

Forsaken

The other major title in development at Acclaim Studios' Iguana UK is an N64 version of Probe's *Forsaken*. The Iguana game is more than a mere conversion, however, as it takes characters from the *Descent*-inspired PC original and uses them to create a singleplayer affair. The game is only three months into development – Iguana has just got the engine running and is starting to put objects into the gameworld.

The restrictions of the N64's cartridge-based architecture have forced Iguana to change the *Descent*-style play, as the enormous levels seen in the PC version are not feasible on Nintendo's machine. Iguana is therefore trying to create a less linear game.



'Acclaim came to us with these comics and said, "Pick your favourite one and do a game with it,"' explains Phipps, the veteran programmer/designer whose credits include Core's *Rick Dangerous* games. 'We've had no hassle from Acclaim,' adds Miller. 'They said, "Look, we trust you. Go away and come up with the greatest game you can possibly do." Which is a godsend.' After working with the comic book creators on the story, Miller and Phipps' team discovered that the title dovetailed neatly with their own ideas.

'We actually started working on the concept of a thirdperson-perspective game about a year ago and then the comics came in and they were better than our original concept,' says Miller. 'It sparked off more ideas. It was easier for us to a certain degree because we didn't have to come up with absolutely bloody everything.'

'Shadowman' the comic is a dark, mature readers' title, which follows the story of Mike LeRoi, English Literature graduate and part-time assassin. LeRoi has been turned into Shadowman by a voodoo priestess and moves between reality and the eerie Deadside, a kind of purgatory where, as Miller puts it, 'He sorts shit out for the priestess.'

Miller and Phipps have expanded on the comic's already rich story and look. 'It's like being a writer on The X Files,' explains Gary. 'You have a main plot that you know as a contextual thing, but within those parameters we can go wherever we want. And we have done. There's a lot of crazy stuff in here. At Core, Simes and I spoke about taking games into this adult territory. It's not so much



Shadowman's creative director, Guy Miller, claims that working on it is 'like writing for "The X-Files"... we can go wherever we want. There's a lot of crazy stuff in here'





The 3D engine allows for some amazing scenes, reminiscent of *Turok*, but with a 'psycho-horror' edge



gore as psychological horror.' The sources they've drawn upon reflect this interest in psycho-horror, with movies like 'Angel Heart' and 'Jacob's Ladder' and painters like Breughel and Heironymous Bosch cited as influences. One of the levels in the Darkside, shown to **Edge** in its early stages, even apes Breughel's painting of the Tower Of Babel, with the player able to enter the huge, phantasmagoric structure.

Shadowman is the first game to use the company's proprietary 3D engine, which, as Iguana UK's technical director, **Richard Frankish**, explains, has been created to empower the designers. 'The idea is for it to be a general-purpose 3D engine which we can optimise for specific games and which enables the games designer to do pretty much what he wants without having to put a load of specific code in for every feature. Our goal is essentially not to limit the game design. If they want to do it, we'll try and do it.'

A game design without limits is one of Miller's avowed goals too. '*Mario 64* defined that for us. It showed that you could create an environment with multiple routes, with a multiplicity of experiences within it, and you're not being driven down one route.' As a result, *Shadowman* has incidental detail, with the player driving the narrative forward, resulting in what Iguana hopes will be a far less linear feel than most games. 'You don't want to feel the game designer looking over your shoulder when you're playing it,' says Miller. 'That's what all successful games should be.'



A year and a half into its projected three-year schedule, *Shadowman* is a more than promising testament to Acclaim's faith in the Teesside firm, as well as further proof of Acclaim's turnaround. 'Now they realise you need less product, more quality,' claims Darren Falcus. 'We've got much better time limits than we've ever had before.'

As the team sits in the company's boardroom, overlooking the Tees, someone mentions the New Labour/New Acclaim jibe that's been doing the rounds. 'Oh, Rod [Cousens, VP of Acclaim] will kill me if that goes in,' moans Acclaim's PR. 'Tough on games, tough on the causes of games,' quips Richard Frankish. Everybody laughs. It's looking far from grim up north. E



Shadow's past

Like *Turok*, *Shadowman* owes much of its plot and detail to the dark, brooding comics of the same name, once again released by Acclaim's own comics publishing division, Valiant Heroes





Shadowman will not be a game for the feint-hearted. If it were a movie, it would owe much to *Angel Heart*



PROBE

As a developer with a long and illustrious history, Croydon-based Probe is one of the jewels in the Acclaim crown. **Edge** samples some of its forthcoming titles

'They're like the Borg,' says **Joe Bonar**, one of Probe's directors of development. 'They go to the drinks machine together, they even go for a piss together.' He is referring to the team behind Probe's new title *Forsaken*, a PC game which looks like taking the *Descent* concept about as far as it can go.

Edge is in Croydon to see one of Acclaim's longest-standing collaborators. Probe was founded in 1984 by Fergus McGovern and made its name as a safe pair of hands to which any blue chip coin-op conversion could be entrusted. *Out Run*, *Roadblasters*, *Super Monaco GP*, *Smash TV*, *Golden Axe* and, most significantly, the *Mortal Kombat* games all came from the arcades via Probe.

Then, there were the movie licences. *Alien 3*, *Robocop 3* and the impressive *Die Hard Trilogy* all proved that Probe had as sure a touch in this field as it did in coin-op conversions. Now a wholly-owned subsidiary of Acclaim (the buyout helped propel McGovern into the list of the 500 wealthiest Brits), Probe's current slate of products reflects the changes at its parent company, with original games outweighing licences.

One of them is the aforementioned PC title, *Forsaken*. '*Forsaken* fits in with our philosophy of taking something that looks like something out there – I'm being cagey now, I'm on tape – and then just make it way better,' states Bonar.



The team responsible for the PC title *Forsaken* assemble outside Probe's headquarters in Croydon

Forsaken does indeed appear to be an impressive game. **Edge** is shown a multiplayer game played by six or seven of the *Forsaken* team (aka the Borg of 'Star Trek: TNG'). 'They don't have any names,' Joe says of the team. 'They are one of many.' Hoverbikes zip through the claustrophobic chambers of the level, weapon fire streaks by and a bike explodes in a mess of fire, debris and bloody body parts.

'With multiplayer it's been a lot easier to get things together,' says **Tony Beckwith**, Probe's other director of development and producer of *Forsaken*. 'The engine's being built at the moment for single player.'

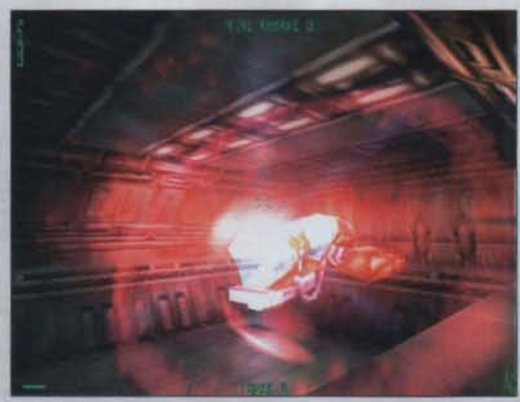
But for now, it's the multiplayer game that grabs. Supporting up to 16 players at once, with a huge variety of weapons, it may be not be doing anything that new, but what it does do, it does very well indeed.

The same could be said for Probe's other adrenaline rush, the post-*Wipeout* N64 racer, *Extreme G*. 'One of the reasons it's called *Extreme G* is because it's got localised gravity,' explains Bonar. 'We can put it anywhere – we can put it on

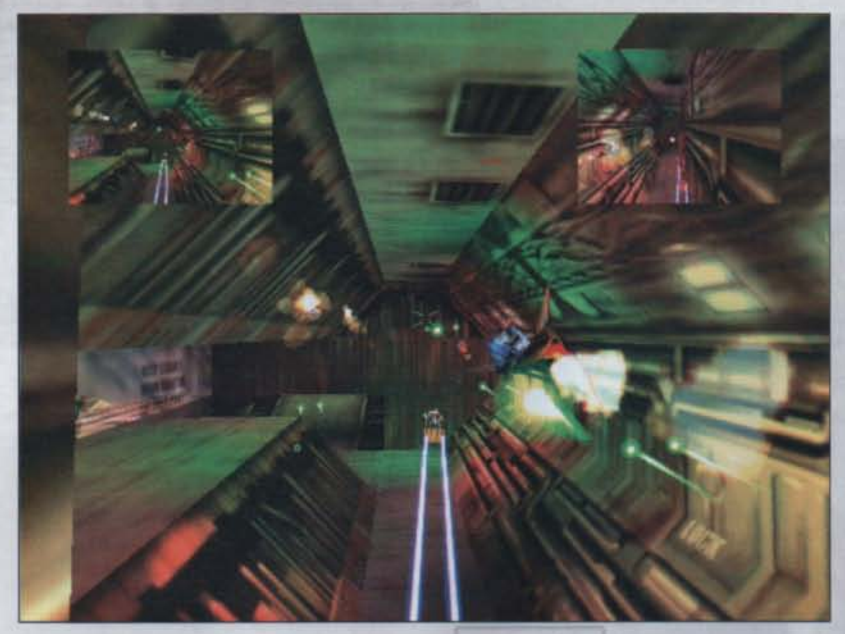








Forsaken looks set to be one of the best looking titles on any platform, as these 3Dfx screenshots demonstrate









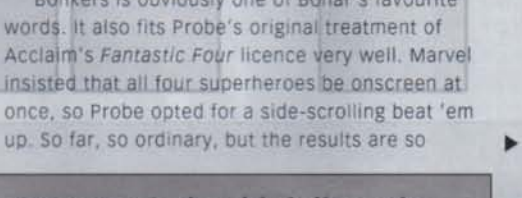
Like its closest relative, *Descent*, *Forsaken* will support the 16-player network option beloved of office-bound gamers



every individual piece of track, we can put it in any direction, we can stick cars to the ceiling, to just about anywhere we like. It means we can do totally bonkers stuff.' Some of that bonkers stuff includes a track that bends over on top of itself so the player can see other racers below him, and one circuit that looks like a 3D Spaghetti Junction.

Fast, slick and eminently playable, *Extreme G* should deliver the kind of headrush not yet seen on the N64. And Bonar admits that one of the key reasons they're developing it is because there's no other game like it on the Nintendo machine. But it's also a good example of Bonar's comment about pushing an idea as far as it'll go. 'We just start to throw mad things at people,' he enthuses. 'On track two, there's a corkscrew, on three there's a loop, then on later tracks we've got split loops and jumps that take you on to another part of the track. You can go up round the walls, you can do just about anything. It's totally bonkers.'

Bonkers is obviously one of Bonar's favourite words. It also fits Probe's original treatment of Acclaim's *Fantastic Four* licence very well. Marvel insisted that all four superheroes be onscreen at once, so Probe opted for a side-scrolling beat 'em up. So far, so ordinary, but the results are so ▶



Fast, slick and eminently playable, *Extreme G* should deliver the kind of headrush not yet seen on the N64. It's pushing an idea as far as it will go. There's no game like it on the Nintendo machine





Probe is planning to take the corridor shoot 'em up pioneered by *Descent* to its ultimate conclusion, both graphically and in terms of gameplay, with *Forsaken*. The coloured lighting adds atmosphere, and gives the game a unique look



Probe is particularly proud of *Forsaken*'s 3D engine, which allows for spectacular effects such as this











Extreme G promises to be the closest thing to *Wipeout* on the N64. The unique 'localised gravity' feature should ensure a suitably bizarre race experience





impressive that it looks as if it could have been a coin-op original. Distinguished by an outlandish array of special effects – as are all the games in development at Probe – *Fantastic Four* is intended to be the ultimate game of its type, according to Bonar. 'What I would like to think is that it's the last of that style of product and that we've done it so well that people will think, "They've done it really well, we probably won't try and do something else with that."'

The other big Acclaim licence in progress at Probe is the *Batman & Robin* tie-in for the PlayStation. Rather than simply follow the plot of the movie, producer **Pete Jones** and his team decided to give the player the whole of Gotham City to explore. 'It can be a maximum size of 64 square kilometres,' explains Jones, 'but it's not actually that size because that would be very boring to drive around. When it was that big it took just over 15 minutes to drive in a straight line from one side to the other.'

The Gotham shown to **Edge** is empty at the moment, with no other cars or pedestrians, but that will change soon. 'We're processing the motion capture, key-framing, getting it all together, getting the meshes built, skeletons in and so on,' says Jones. 'They'll start plopping in and you'll have pedestrians just wandering.'

Playing as Batman, Robin or Batgirl, the player has to piece together clues to reach the next major location of the story. Jones feels that this kind of gameplay is in keeping with the Dark Knight's detective origins. Each of the superheroes has its own strengths and weaknesses, which it is hoped will add another tactical dimension to the game.

The last title shown to **Edge** is Nintendo 64 football game *Ultra Soccer*. Wasn't producer









Will *Batman & Robin* be just another shallow licence, or will Probe's move to 3D give it the neccessary boost?



After seeing Konami's *J-League Perfect Striker*, Probe increased the detail levels of *Ultra Soccer*'s players

Darren Anderson worried when Konami's superlative *J-League Perfect Striker* appeared? 'Yeah, the men in the Konami game were really nicely modelled,' he accepts. 'They looked really good when you zoomed in. That was the most worrying thing. It made us kick our men out and start again.'

But for the Probe boys, *J-League* was not without its faults. 'Too arcadey' seems to be the major criticism, hence *Ultra Soccer*'s carefully playtested wealth of formations and tactical approaches. Anderson has also aimed for simple controls – another gripe Probe had with *J-League*. 'This game will help you out. When you're running at a player or something like that, a logical move on the joypad will cause your player to shimmy round him, that sort of thing.'

The five titles seen by **Edge** in Croydon represent only a small sample of the current development slate at the prolific Probe. They're attractive games, certainly, but perhaps not particularly adventurous, **Edge** suggests... 'It is a very market-driven business, y'know,' argues Joe Bonar. 'Sometimes you'll come across games that you think are just absolutely brilliant, that you would probably love to play, that you think, "Well, maybe ten other people would like to play that too." So, I have my Internet game with 11 people and nobody else will sell a single copy.'

Given the company's success, it's difficult to argue with the Probe philosophy, although 'philosophy' is perhaps too high-falutin' a word for the down-to-earth Bonar to stomach. 'Change is hard for many people to deal with. God, I'm getting really fucking cerebral. Am I making any sense here or just talking pants?'

SCULPTURED

Based in Salt Lake City, Sculptured is regarded as something of a hit machine

Sculptured Software made its name on the SNES with *Super Star Wars*, *Super Empire Strikes Back* and *Doom*. After converting such best-sellers as *Mortal Kombat*, *MK2* and *WWF Wrestlemania* for the company, the developer was unsurprisingly snapped up by the codeshop-hungry Acclaim in 1995. Based in Salt Lake City, Utah, its first task as part of the corporate behemoth was to code the coin-op *NBA Jam Extreme* (an Iguana title), which became an instant arcade hit.



NHL Breakaway '98 dovetails well with Acclaim's other sports titles, *Quarterback Club* and *All Star Baseball*

Since then, Sculptured has been working on its sports project, *NHL Breakaway '98*, an ice hockey title for the PlayStation, Saturn and PC. Due for release in September, the game features hi-res, D3D graphics (on PC) and an innovative physics model, dubbed the 'Momentum Based Checking System', which takes into account the weight and speed of each player as they collide on the ice.



The company is also working on an as-yet-undisclosed N64 project. Whether this will be a sports title or a more original project is unclear, but Sculptured hit-machine sensibilities should ensure that Acclaim's accountants can more than justify the company's considerable investment.







The players boast their own height, weight and speed characteristics, which come into play during violent body-checking and dodging moves (PS shots)

LBA2: Twinsen's Odyssey







***LBA2*'s peculiar hero, Twinsen, navigates a rope bridge (above), a task made easier for the player by the game's capacity to reframe the action at any point. Tweeness abounds (right)**





The locations and characters go beyond simple Gallic charm, also tapping into the distorted worldview often found in children's stories

Few would deny that Adeline's *Little Big Adventure* exhibited a breathtaking breadth of vision. From its quasi-mythical storyline to its use of realtime Gouraud-shaded 3D in an isometric platform environment, everything about the game was quirky, wild and shamelessly childlike. Sadly, the game paid the price for its uniqueness. The presentation and story innovations were allied with overly frustrating gameplay and a clumsy control system, and there was little sense of pace. *LBA* was big on wonder but woefully short on thrills.

The sequel's design is curious in that it retains many of the original's flaws and yet still manages to provide a more complete gaming experience, thanks in part to a tighter structure, a better learning curve, and a script which excels even the first game's in ambition, giving the player a thirst for exploration right from the off.



Indoor locations use the isometric view of the first *LBA*, thereby avoiding clipping problems

The hero of the tale is once again Twinsen, an unlikely-looking protagonist with an oval face and a single, bunched twist of hair. As the game opens, the peace enjoyed by Twinsen and his beloved is cut short by a lightning storm, which injures his Dino Fly creature and so sets the whole game in motion. The first task is to visit the pharmacy in search of medication for the dragon-like beast, which then leads to the recovery of a stolen umbrella, the purchase of a ferry ticket, and a discussion with a weather wizard who needs to gain access to the island's lighthouse in order to stop the storm.

Needless to say, things soon get very convoluted. Trips into the island's sewers and through cave systems are followed by meetings with all manner of strange races and even encounters with UFOs. The puzzle-upon-puzzle device is a well-worn one, but thanks to the way the inventively designed problems neatly integrate, it's more than enough to power the endearingly child-like story along. And with the various island locations in the gameworld gradually opening themselves up for exploration as the story progresses, that crucial sense of wonder is always maintained.

While the first title used a curious mix of isometric 3D backdrops and small but detailed polygonal







Despite the use of texture-mapped 3D polygons to draw the exterior sections of the gameworld, *LBA2*'s visuals occasionally come close to those found in the prerendered *Ecstatica* titles

characters, *LBA2* opts mostly for a more flexible approach, reverting to the old formula only to depict indoor scenes. Once outside, the gameworld is rendered in realtime, enabling the artists to create far more varied terrain using polygon texture tiles rather than square building blocks. Not only has this technique obviously allowed Adeline to up the scale of the game, but it also lets the player track Twinsen's movements more accurately. Each background scene remains static, as in *Ecstatica 2*, for instance, but while that title frequently left the player struggling to control the action from awkward angles or ridiculous distances, here a simple keypress re-renders the action from a closer, more advantageous viewpoint. It's a shame the idea wasn't extended further to allow for *Tomb Raider*-type tracking, and the visual style does jar a little with those indoor scenes, but it's a real step forward nonetheless.

Inexplicably, Adeline has opted to retain the original title's control system, which is easily the weakest aspect of the design. Directing Twinsen using a rotational format is just about workable when exploring, but it makes the fighting scenes wholly unfair. The player's ability, as before, to select 'Normal', 'Sporty', 'Aggressive' and 'Cautious' modes may well allow for greater control variation, but it's totally impractical to use when you're in a tight spot. The true-3D viewpoint and more even-handed action

Little Big Adventure 2 boasts an intriguingly mystical storyline and an impressively lavish gameworld, where bipedal elephants rub shoulders with talking cows

sequences prevent players from experiencing the same levels of frustration as first time around, but it's still pretty annoying.

Which is a shame, because pretty much every other aspect of the presentation is top-notch, from the lush, location-sensitive soundtrack to the curious, keenly animated comic-book characters and their equally cartoonish voicovers. And then there's the intriguingly mystical storyline and the impressively lavish gameworld, where bipedal elephants rub shoulders with talking cows and hidden locations are always around the corner.

Which ultimately means that *LBA2* manages to entertain almost in spite of itself, inspiring an urge to progress that's lacking in too many titles. It's the sort of game that will doubtless inspire genuine devotion among many adventure-hungry PC gamers, but it's a shame that the many and varied puzzles aren't the only challenge they face.



With a polygonal character, players are able to move in more than the usual eight compass directions

Edge rating:

Seven out of ten

Format: **PC**	Publisher: **Electronic Arts**	
Developer: **Adeline**	Price: **£40**	Release: **Out now**

Overblood









The laboratory's many locations are diverse (main). The lead character possesses a level of detail higher than that of Lara Croft (left), and can perform a variety of useful functions (right)





In order to break up the usual room searching required in these games (above), *Overblood* offers some new additions to the genre (top)





The different areas, although in keeping with the game's laboratory setting, can often look rather bland

With *Tomb Raider* and *Resident Evil* having already set benchmarks, any new adventure game for the PlayStation faces a monumental challenge in attempting to better (or at least equal) the quality of either title. And players eagerly awaiting the release of their sequels will have their patience thoroughly tested – the former will only be ready by the end of the year, while the latter now looks doubtful to appear before early 1998. Adventure fans will therefore have to look elsewhere in order to fill the void. *Overblood*, from Japanese developer Riverhillsoft, might just sit comfortably in that gap.

In it, the player wakes from cryogenic sleep in a laboratory without a single memory of his past, not even his name. It soon becomes apparent that his premature awakening is the result of a malfunction – the timer on his pod had originally been switched to a setting of 'eternity'. As the temperature is below zero, the first task consists of finding a way to keep warm before freezing to death. Once that's taken care of, it soon becomes clear all is not well; the surroundings appear to be deserted and to have suffered heavy structural damage. Some exploration to obtain some answers would appear to be in order.

In reality, the simplicity of the plot is such that most players should work it out in the first 30 seconds, yet *Overblood* remains a compelling experience. Visually, the game resembles *Fade to Black*, with its grey corridors and futuristic lab look, but generally the graphics merely serve their purpose rather than push the PlayStation to its limits. However, *Overblood* offers





Along his journey to obtain the truth concerning his identity, the player will encounter companions willing to offer a hand. Control between these can be switched – useful when tackling certain obstacles






Although hand-to-hand combat is possible, characters can collect a gun (left) which can be used to great effect against the game's few – but ferocious – villains (centre)

the choice of three different views – first-person, chase cam, and a *Resident Evil*-style filmic perspective – and unlike the latter's precalculated locales, the action takes place in a true 3D environment.

Overblood also differs from previous efforts by offering more than one character to control. Early in the game, for example, a small robot is found which will follow the main character. Switching between the two makes it possible to solve puzzles or overcome obstacles. The puzzles themselves are fairly standard examples of the type found in these games, but at least the clues concerning the use of newly found objects are not patronising, occasionally requiring players to make use of their grey matter.

Where the game does succeed is in setting the right atmosphere in a game that relies more on exploration and puzzle-solving than all-out action. New plot twists are taken care of with the use of prerendered sequences, but these cut in without disturbing the game's flow. Also, the acting quality of the game's characters is thankfully above average. The music, meanwhile, is equally appropriate, enhancing the tension without ever becoming obtrusive.

Sadly, though, *Overblood*'s control method is disappointing – the main character is poorly animated, but more importantly manoeuvring him is awkward, making the negotiation of trickier sections a sometimes frustrating experience. Jumping across gaps can be particularly difficult – it's certainly not as intuitive as in *Tomb Raider* – and energy is lost during fight sequences due to the sluggish response.

Although *Overblood* mostly follows previous titles in terms of gameplay, Riverhillsoft has added a couple of new twists to the old formula to retain the player's interest, most notably an 'Akira'-style water-skimmer section. Unfortunately, there aren't enough of these twists to mark the game out as a revolutionary step.

Despite its flaws, *Overblood* is an enjoyable adventure that should keep 3D adventure enthusiasts quite happily occupied until the follow-ups to *Resident Evil* and *Tomb Raider* arrive.

Edge rating:

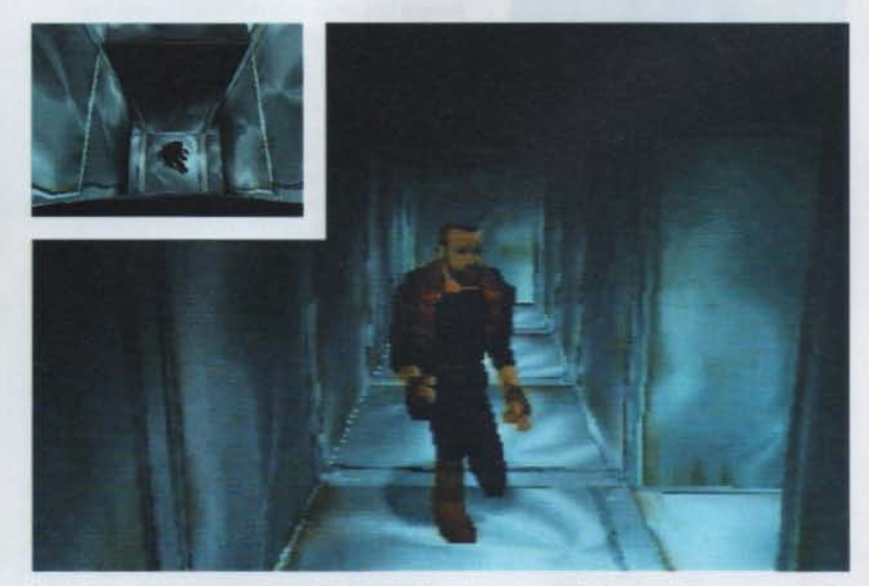
Seven out of ten



Occasionally, searching may require visiting unexpected areas of the lab




Players will have to use their heads when faced with obstacles in order to continue their quest



Air ducts prove extremely useful, allowing the player to crawl along to different sections of the game's setting, as well as further enhancing the sense of realism and general atmosphere

Format: **PlayStation**	Publisher: **EA/High Score Entertainment**	
Developer: **Riverhillsoft**	Price: **£45**	Release: **Out now**

V-Rally



V-Rally **incorporates some of the world's more famous rally events and as such offers the player different surfaces to race on. Particular attention must be paid to the setting up of cars in order to ensure keeping up with the computer-controlled cars is at least an option**









The game offers the usual option of in-car and chase-cam views and both prove supremely playable

Although *Ridge Racer* has always been pitted against the Saturn's *Sega Rally*, the PlayStation has yet to have a decent rally game. Perhaps publishers preferred to bet on the immense popularity of other racing styles such as Formula One rather than the comparatively minor attraction – and therefore commercial gamble – that rallying represents. However, *Sega Rally* proved there is much fun to be had throwing a car sideways around corners, and its success should have more than balanced the books. Realising the potential in such a title, Lyon-based Infogrames is intent on changing the current state of affairs by being the first off the grid with a proper rallying experience for Sony's machine.

Even before the game has begun, a wealth of options face the player. Eleven cars are available ranging from small Group N, standard production models from Peugeot, Citroen, Nissan and Skoda, to top-of-the-range examples such as the Subaru Impreza – the car currently driven by 1995 world rally champion Colin McRae (and best left alone until adequate experience is acquired). Every aspect of the cars, including steering balance, tyres, suspension, gear ratios and gearbox, can be altered to suit the particular stage and the player's individual driving style. And unlike other games, the right choice is vital in order to stay on the road. Anyone doubting their effectiveness should try using asphalt tyres and a hard suspension setting on the snow stages...

In terms of racing, three modes exist: championship mode allows rallying in one of eight geographical spots such as Indonesia, Africa, New Zealand, and several European settings, each comprising three stages; arcade mode offers a mixture of different courses from the various locations around the world and forces the player to reach time gates before the seconds run out; and time trial includes a *Mario Kart*-like 'ghost' mode enabling players to race against their best lap.

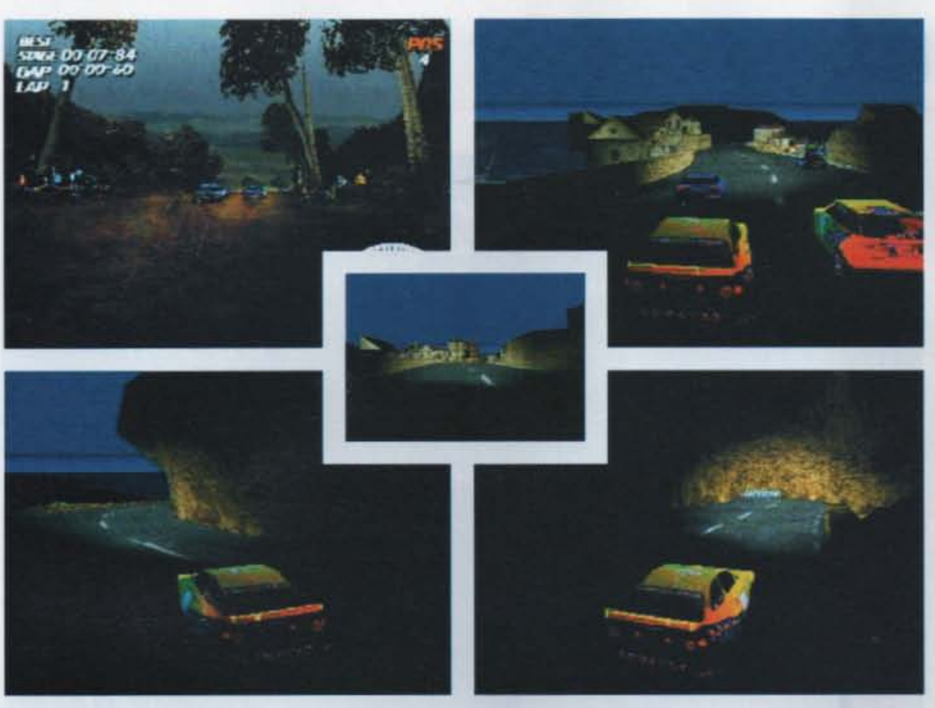
The tracks themselves offer a variety of dirt, gravel, snow, and tarmac surfaces for the player to tackle as well as different weather conditions that make staying on course an arduous task.

Indeed, the first thing players will notice is the fact that *V-Rally* lacks the immediacy of other racing games. During the first few laps, most of the time will be spent hitting barriers or trees lining the road, suffering monumental crashes, and ending up facing the wrong way following over-ambitious power slides. However, with a little practice, progress is quickly achieved to the point where wide, open corners are taken with the car drifting confidently sideways.

But this is no easy Sunday drive. Just like the real thing, constant steering correction is required, with



As well as having a co-driver, on-screen arrows further warn the player of bends lying ahead



The lighting effect used during night stages is particularly impressive in the way it resembles real night time rally driving. Certain sections, such as tunnels, make for a claustrophobic experience (above right)





The twoplayer option only suffers a slight loss of graphical detail yet no discernable slowdown is evident

any momentary lapse of concentration resulting in disaster. Corners have to be taken with care, lining up the car correctly in advance and using the right balance of throttle and brakes, with tighter curves calling on delicate use of the handbrake.

Forty-five individual tracks appear in total, and these are not merely different combinations of weather effects and lighting conditions as was originally feared. The courses, which alternate between circuits requiring several laps and others adopting the proper rally start/finish-stage approach, differ depending on the mode of play.

Where *V-Rally* excels is in its level of realism – the sensation of skidding and the cars' handling is conveyed admirably as is the sense of speed. The French Alps sections, for example, demand absolute concentration as the player negotiates a relentless combination of turns at hair-raising velocity while listening to the co-driver's seamless stream of instructions concerning the road ahead.



Although impressive, the cars sometimes bounce around unrealistically as if they were weightless

Equally impressive is *V-Rally*'s attention to detail. Each car is beautifully and accurately textured, featuring the livery of their real counterparts; flames burst out of exhausts after each gear change; and the courses are representative of their real life setting.

However, crashes, although spectacular, occasionally give the impression that cars are made of balsa wood because of the way they bounce around unrealistically. Pop-up is also present, but this is minimal and only noticeable in certain parts of the stages. Of more concern are the white break-up lines associated with PlayStation games, evident here when the player uses the in-car view during the night stages.

These are minor quibbles, though. The variety of courses and the complex nature of its driving engine should see players occupied for a long time before achieving mastery of *V-Rally*, while finding it a very rewarding experience. And there's always the split-screen twoplayer option – particularly enjoyable if experienced players engage in a duel – which sees little loss of speed or graphical detail.

The PlayStation driving game market is an overcrowded one, but by adopting a feel which is a marked shift from standard bearers such as *Rage Racer*, Infogrames has succeeded in producing a game which complements other examples.

This is a brave game, then, whose endeavours to distinguish it as its own title serve to earn it must-have status to driving game aficionados.

Edge rating:

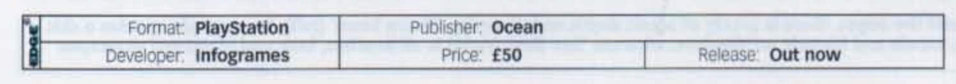
Eight out of ten







V-Rally **is compatible with Sony's new joypad to offer analogue control over both steering and acceleration**



Format: **PlayStation**	Publisher: **Ocean**	
Developer: **Infogrames**	Price: **£50**	Release: **Out now**

Runabout





The crowded scenery in *Runabout* provides the perfect stage for some frenzied motor vehicle destruction



The morally questionable smash 'em up driving game has become a popular sub-genre in recent months. SCi started the ball rolling (over pedestrians and passers by, as it happens) with *Carmageddon*, DMA is putting the finishing touches to its crime fest, *Grand Theft Auto*, and sandwiched in between is this manic yet simply plotted offering from Climax.

Choose a car, select a course, drive from one end to the other, collect a few objects along the way, and damage surroundings – that's pretty much it. But then that's pretty much all it takes to make this a bewilderingly addictive experience.

On the face of it, *Runabout* shouldn't work convincingly – its graphics are rough in places, with crude 2D pedestrians hopping away from the player's car with no animation and no real sign of distress; textures warping all over the place; and polygons grating against each other like the two opposing plates of the San Andreas faultline. At times *Runabout* has the appearance of a first-generation 32bit product.

But beneath this occasionally shabby exterior is a game which combines humour with surprisingly varied and fast-paced action. The first circuit ('Down Town'), for example, starts off with a labyrinthine Chinatown, where roadblocks, pedestrians and other traffic swarm the narrow streets – streets that are flanked on each side by huge tenement buildings, leaving little room





Although the visuals are a little rough around the edges, there is plenty of scenic depth and diversity. 'Metro Town' (left), for example, creates a chic Parisiènne atmosphere with outdoor cafés, canals and historic architecture, whereas 'Sea Side' (right) is all beaches, huts and blood-red skyscapes

for error. This is a great place for practising extravagant handbrake turns and smashing through barriers to find the quickest routes to the end of the level – essential skills to be mastered for success in the remainder of the game. It is also here that the player realises anything goes – shopping arcades can be smashed through as short cuts, while pedestrians and other vehicles are merely annoying distractions.

The brilliance of the vehicle handling is also immediately obvious. Combining realistic sensitivity with the overblown physics of '70s car chase movies, the designers have created a driving model which would have Jeremy Clarkson spewing sexist driving metaphors at an alarming rate.

Whichever vehicle is chosen (from a total of 22 – 12 of which are initially hidden – each with their own handling characteristics and body strengths), the player can swing round corners, swoop across roads and scrape against barriers with foolhardy abandon. Amazingly, the experience always feels strangely realistic – even when cars smash headlong into a truck, crunch back through the air and then skid to a halt allowing the player to burn off again. Here, speeding towards a building at 150mph only to jam on the handbrake and skid gracefully away offers a remarkable adrenaline rush, something that is heightened by the game's accomplished garage surf band soundtrack razzing away in the background.

The varied tracks certainly test this cocky, exciting handling to the full. After Chinatown, 'Down Town' opens up into a lush cliffside highway before sending the player hurtling through the grounds of a mansion and then, most extravagantly, straight through the french windows of a hotel, through its lounge and then out the other side to rejoin the highway – a brilliant moment of Bodie and Doyle-style destruction which epitomises the designers' determination to surprise the player. Importantly, the player has to reach the end of each level within a tight time limit, so the gung-ho driving that the track design encourages is actually a prerequisite in completing the task.

Once the player is this deep into the game, the visual hiccups become less noticeable. Instead the vehicle handling and the well-designed and diverse scenery begin to impress – as do the amazing explosion effects which leave vehicles in rapidly deteriorating states of repair.

The later two courses are more of the same with a few of their own twists and turns thrown in. In 'Sea Side', the player has to race along an ocean motorway,



***Runabout* offers a simple test course allowing players a chance to hone their driving skills**



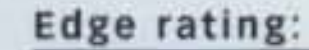
Short cuts litter each *Runabout* track. 'Sea Side', for example, offers this hidden beach run (above), and the thoroughly daunting bridge jump (right)

continually checking the map for the best route. Here the aim isn't to pick up objects spread about the map as it is in 'Down Town'; instead, the player has to locate a limo and ram it into submission before racing to the end of the course. There are some great set pieces along the way, including tunnels crowded with traffic, toll gates blocked by police cars, a beach short cut, and, best of all, a partially open bridge which can be jumped over to save time (an incredibly risky manoeuvre, but a very satisfying one if successfully pulled off).

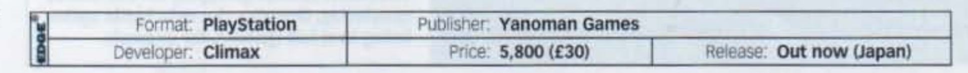
'Metro City', the last of the circuits, is perhaps the best of the bunch, though. Designed with a Parisiènne theme, it features canals, cafés and ornate buildings to avoid as well as a devilishly-difficult-to-navigate conclusion centring around the medieval walled section of the city.

The continual pressure of the ticking clock, weighed out against the desire to smash up as much as possible and collect all the required objects, makes this an incredibly entertaining and tactically contrasting alternative to standard circuit-based racing games. Although there are only three real tracks, there are lots of short cuts to discover, and the temptation to beat previous speeds and feats of destruction is strong. On top of that, the hidden vehicles, including a tank, stretch limo and F1 racing car, ensure that the completist is sure to spend extra hours with the game.

Nowadays, console owners are constantly calling out for titles with originality, and *Runabout* is certainly a reply to this mantra. It'll be a short ride – especially for those not interested in beating past scores or uncovering secrets – but certainly an intense, enjoyable and surprising one. Few flashy arcade conversions can boast the same.


Edge rating:

Seven out of ten



Format: **PlayStation**	Publisher: **Yanoman Games**	
Developer: **Climax**	Price: **5,800 (£30)**	Release: **Out now (Japan)**







'Down Town' (top), 'Sea Side' (middle) and 'Metro City' (bottom) are varied arenas for the action

Wild Arms





As is to be expected from a game of its nature, the use of magic is essential in conquering *Wild Arms*

It's been a time of darkness, for RPG fans. But while the translation of *FFVII* is awaited with slightly more anticipation than the second coming, Sony looks set to appease that audience in the interim with the totally surprising *Wild Arms*.

Strip away the 3D battle scenes and you could easily fool yourself into thinking that it's summer 1995 and you're playing the latest Square translation on your import SNES. A bizarre compliment in itself, but here's the twist: because the 16bit scene died overnight, and because the PlayStation's handful of RPG offerings to date has been so uninspired, this 32bit 'revisit' is sufficiently attractive to make *Wild Arms* an enormous sensation.

Media Vision's designers are obviously big fans of Square, and there may even be professional connections. *Wild Arms* doesn't just pay homage; in some areas, the wholesale snaffling of features steps a little too far over the line to be considered merely cheeky. However, it's hard to imagine many players feeling cheated on Square's behalf as they recognise and replay the stalls of *Chrono Trigger*'s Millennial Fair, or fight in a version of *FFIII*'s Colosseum where they can actually call the shots. And in any case, questions of originality are difficult to apply in a formulaic category where Laputan sky realms and the discovery of 'ancient' technologies seem mandatory.

There are just three playable characters, acting individually or as a party where the plot dictates. Zack is a cross between *FFIII*'s Locke and Cyan, and his many sword techniques include the ability to steal from monsters. Cecilia is the magic-user/priest, a princess around whom the story revolves. And then there's Rudy Roughknight, whose innate skill with revolvers and rocket launchers gives the game its title.

The reason for this small roster is a strongly interactive environment that plays more like an action RPG than the usual turn-based dungeon bash. By flicking between characters you can access their individual equipment to solve minor puzzles – using a grappling hook to cross chasms, for instance, or planting bombs to blast weak walls. Switching back and forth is a minor nuisance, and none of the block-shifters are taxing enough to halt you in your steps, but it really does beat crawling round the traditional maze for hours on end.

Random monster encounters mark a temporary shift to 3D, with polygonal creatures featuring in brief but expressive animations. As the party comes together and the monsters get increasingly nasty, what at first appears to be the weakest section of the game slowly develops into the one providing the biggest thrills. The spells become pyrotechnic, the creatures grow more grotesque, and if the dynamic camera view can lose its target occasionally, you'll still see many random moments of cinematic brilliance.

Despite the need to serve two different roles, the pad interface is exemplary. When in doubt, you can, without fail, press the universal 'Help' button for a brief description of whatever item or command is currently highlighted – particularly useful in a game which allows you to invent spell names and customise your own UDG icons. This wealth of options even extends to a built-in screensaver with adjustable timer – a luxury in console terms.

The only area where you might sense an absence of flair is the scripting. The story is agreeable enough







Combat sections are where *Wild Arms* begins to exploit the power of the format, with translucent lighting effects coming into play to make this a striking game. The actual combat gameplay isn't as wholly convincing, though – the auto battle option being best left ignored, for example





When the party is split up, it's possible to keep track of other members via a novel 'picture-in-picture' window



Despite the game's 32bit nature, *Wild Arms'* main sections rarely look much better than *FFIII*

in its familiarity, it but lacks the emotional string-pulling one might cynically describe as Square's forte. There's no lack of melodrama, and the sweeping Morricone-inspired soundtrack accompanies countless tragic deaths, but a romantic encounter or narrative flashback is more often an excuse for the character to discover a new fighting technique than a means of involving you in their quest for personal happiness.

Although the appeal must be a mystery to some, fans of turn-based combat will be pleased to see a decent depth to the skirmishes. Basic armour and weapons have no intrinsic powers, but by wielding an item in the left hand you can give your attacks an elemental modifier or gain protection from afflictions like Poison. With each turn, your Force Bar fills, accessing further character abilities. There are also the Guardian Runes, which boost certain attributes and can summon deities. Although the battle system doesn't quite match the AD&D-style complexities of *FFIII*, it easily surpasses the current competition.

The sole disappointment for many will be a bafflingly low difficulty gradient. Until the arrival of monsters with higher magic, it's only the frequent boss conflicts that present any real threat. Even then, it can seem that your enemies lack the intelligence or tactics to exploit the powers at their disposal. The comprehensive auto-battle feature is an insult to the experienced player and should never be used.

In theory, *Wild Arms* ought to fall with a bump between two stools. Sceptics would argue that the action sections can't possibly compete with *Zelda*, while the turn-based battles suffer from a limited bestiary and a small, fixed party. True enough, but both aspects are so slickly executed and thoughtfully integrated into the whole experience that there's never a single moment of boredom in which to consider such flaws. This is a game designed by people who know and love their console roleplaying – a quality that will be best confirmed by its imminent success. Quite simply, the finest translated RPG for the PlayStation to date.

Until, well, you know what. Probably.

Edge rating:

Eight out of ten



Like so many 8bit Japanese RPGs before it, *Wild Arms* presents many scenario-setting flashbacks



Format: **PlayStation**	Publisher: **Sony Computer Entertainment America**	
Developer: **Media Vision**	Price: **$45 (£30)**	Release: **Out now (US)**

Conquest Earth



The gorgeous, highly detailed graphics are a big part of *Conquest Earth*'s appeal. Fortunately they're backed up by a well-designed game core packed with great ideas and neat touches





Each side has its own interface – the aliens' is suitably organic looking, but it's harder to understand

Command & Conquer has a lot to answer for. It wasn't the first realtime strategy game, and in several respects it wasn't the best, either. But it was certainly the one that proved just how popular this style of game could be. In much the same way that a hit movie spawns half a dozen imitators, *C&C* has given rise to a steady stream of similar games, all promising to be bigger, better and more fun. Few of them ever are, of course, but there is the odd exception – and *Conquest Earth* is one of them.

The plot has the Earth being invaded (yet again) by nasty alien types bent on destruction. This time they're from Jupiter and boast biotechnical weapons and equipment that H R Geiger would be proud of.

You can elect to play either side, selecting either a straight campaign of over 30 consecutive missions or a slightly more advanced strategic mode in which you have greater control over the state of the war itself. Up to eight people with suitably connected PCs can also blast each other in the multiplayer option.

One of the things that makes *Conquest Earth* stand out is its excellent graphical content. The various units and buildings are lovingly detailed and smoothly animated, there are wonderful explosions and other effects, and the whole shooting match is presented in 64,000 colours and framed by a very pretty interface. The backgrounds, though, are the most impressive aspect. Provided you have at least 24Mb of RAM, each theatre of war is represented by a single bitmap of incredible detail. As the battle proceeds, tyre tracks leave their impact on the landscape, burnt-out husks of destroyed vehicles become strewn everywhere, and the bodies of the slain begin to mount up.

Gameplay is equally impressive, partly because *Conquest Earth* is faster-paced than many of its rivals, with some levels more akin to Sensible Software's *Cannon Fodder* than *C&C* – rarely are you left watching things being built for long. And instead of the rather simple 'click to attack, leave 'em standing to defend' mechanics of other realtime games, *Conquest Earth* offers several different options for your troops – three attack strategies and three defensive postures, each of which is useful for different scenarios. You can also take direct control of an individual unit at any time, moving and attacking with the cursor keys and spacebar – just the thing for mounting daring commando raids.

Conquest Earth is one of the few realtime strategy titles that tries to improve upon its inspiration rather than simply copy it. If anyone still needs convincing that examples of the genre aren't automatically dull to look at and boring to play, a few minutes' experience of this should be enough to persuade them otherwise, while the plethora of great ideas and cunningly designed levels will keep even the most dedicated player happy for weeks. **E**

Edge rating:

Eight out of ten

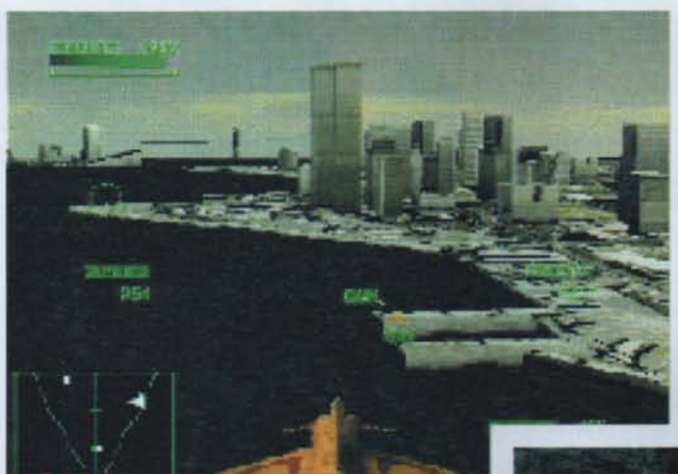




Human soldiers aren't really a match for the big, tough aliens – they must be backed with vehicles and good tactics to win. A big bunch of alien soldiers on their own are capable of causing serious carnage

Format: **PC**	Publisher: **Eidos**	
Developer: **Data Design**	Price: **£40**	Release: **Out now**

Ace **Combat** 2









Namco has upped the detail count for this sequel, offering a wealth of extra background features

The original *Ace Combat* suffered from being a shallow, short term experience more suited to an arcade than a console. This sequel, while still firmly caught in its predecessor's jet stream, manages to include a few new features.

As in the original, *Ace Combat 2* offers 20 missions involving engaging enemy fighter jets and transport planes, or destroying ground targets such as missile launchers, buildings, or ships in a harbour. Each successfully completed sortie earns the player money which can be used to buy better planes or to hire the help of wingmen for some of the harder levels.

Occasionally, the player is given the choice of two battles to undertake but this does little to disguise the game's limited gameplay – the player simply flies around engaging afterburners to catch up with enemy targets before releasing a couple of missiles. To its credit, Namco has tried to break up the monotony by including canyon levels, and short stages requiring the player to land the plane safely after a mission.



Players are now called upon to land their aircraft on certain missions. This addition bolsters gameplay only mildly, however



Namco's polygon routines make generating complex mountainous regions straightforward

In addition to these new inclusions, *Ace Combat 2* also boasts better graphics than its predecessor, with a higher level of background detail visible, as well as a higher number of buildings present during town sections. The planes now look better too, adopting more realistic livery this time out.

Sadly, the same cannot be said of the control of the aircraft which remains sluggish. Turns take ages to perform – a fault present even in the top of the range models, while the twoplayer mode has been dropped.

Because of its familiar nature, *Ace Combat 2* has little more to offer owners of the original. Furthermore, the repetitive nature of its gameplay will prevent it grabbing the attention of a wider audience looking for any form of long-term challenge.

Typical Namco gloss, then, but ultimately a disappointingly shallow experience.



Edge rating:

Six out of ten





As the game progresses, new aircraft (top) become available for purchase. When a mission has been completed, the player can use the game's replay mode to examine his performance (above)

Format: **PlayStation**	Publisher: **Namco**	
Developer: **In-house**	Price: **¥5,800 (£30)**	Release: **Out now (Japan)**

Cutting-edge technology abounds in two new releases in the arcade scene. The question remains, though: do such innovations equal better gameplay?

Polystars







Matsushita's M2 technology certainly gives *Polystars* impressive graphical impact, but the standard falls way short of Sega's Model 3, for example





In some respects, *Polystars* is a brave move for Konami – it nestles within an unfashionable genre and it uses untested technology

The unveiling of *Polystars* as the latest shoot 'em up from Konami is unlikely to set the arcade world alight. Of far more interest, however, is the fact that this is the first coin-op to use M2 technology. The game runs on an M2 board with a 16Mb expanded RAM, although the exact configuration is unknown because Panasonic has not yet announced it.

The game's plot is not as secretive, though. As a member of *Polystars'* police squad from the planet Polygon, the player must shoot down the Perfect Primitive Polygons – a race intent on removing texturing and shading from the world of polygons – and restore peace to their world.

Despite such an unusual storyline, gameplay remains very much in line with the Konami's *Parodius/Twinbee* series, as do the game's colourful backgrounds. Indeed, collecting the first power up in *Polystars* will result in the player's ship being escorted by allied planes (like *Parodius'* multiples), with further upgrades offering weapon boosts. The controls also reflect the game's classic approach, offering just two buttons (shots and missiles) to assist players in battles.

The view, which is presented in a semi-top-down perspective, will alternate between a high and low position. Players will not be able to switch between these, though, because their use depends on which of the game's six levels is played.

Polystars boasts fluid animation and no apparent slowdown despite its many polygons and backgrounds which rotate 90 degrees. But it offers nothing new in gameplay – it's another addition to the shooting genre which merely *looks* more advanced that its predecessors.







Developer:	Konami
Release:	Out now (Jap)
Origin:	Japan

Polystars is certain to prove at least fairly popular in Japan, where its cutesy Pop 'n' Twinbee stylings have always gone down well. If the game does make it to western arcades in any significant number, it will rely on Konami's sound shoot 'em up sense – which in the past has produced classics like *Nemesis* and *Salamander* – to prevail

The Lost World: Jurassic Park 2







Sega's *Jurassic Park* coin-op used sprite-scaling technology; this Model 3 sequel's visuals are leaps and bounds ahead





Gameplay adheres to the movie's plot to some degree, but Sega has obviously used artistic licence to make this especially action-packed







Those familiar with the dinos of the original movie will know these little critters (top)

There can be few better ways of ensuring a coin-op's success than employing a well-known genre, a huge film licence and a state-of-the-art board in one package – which is exactly what has happened here.

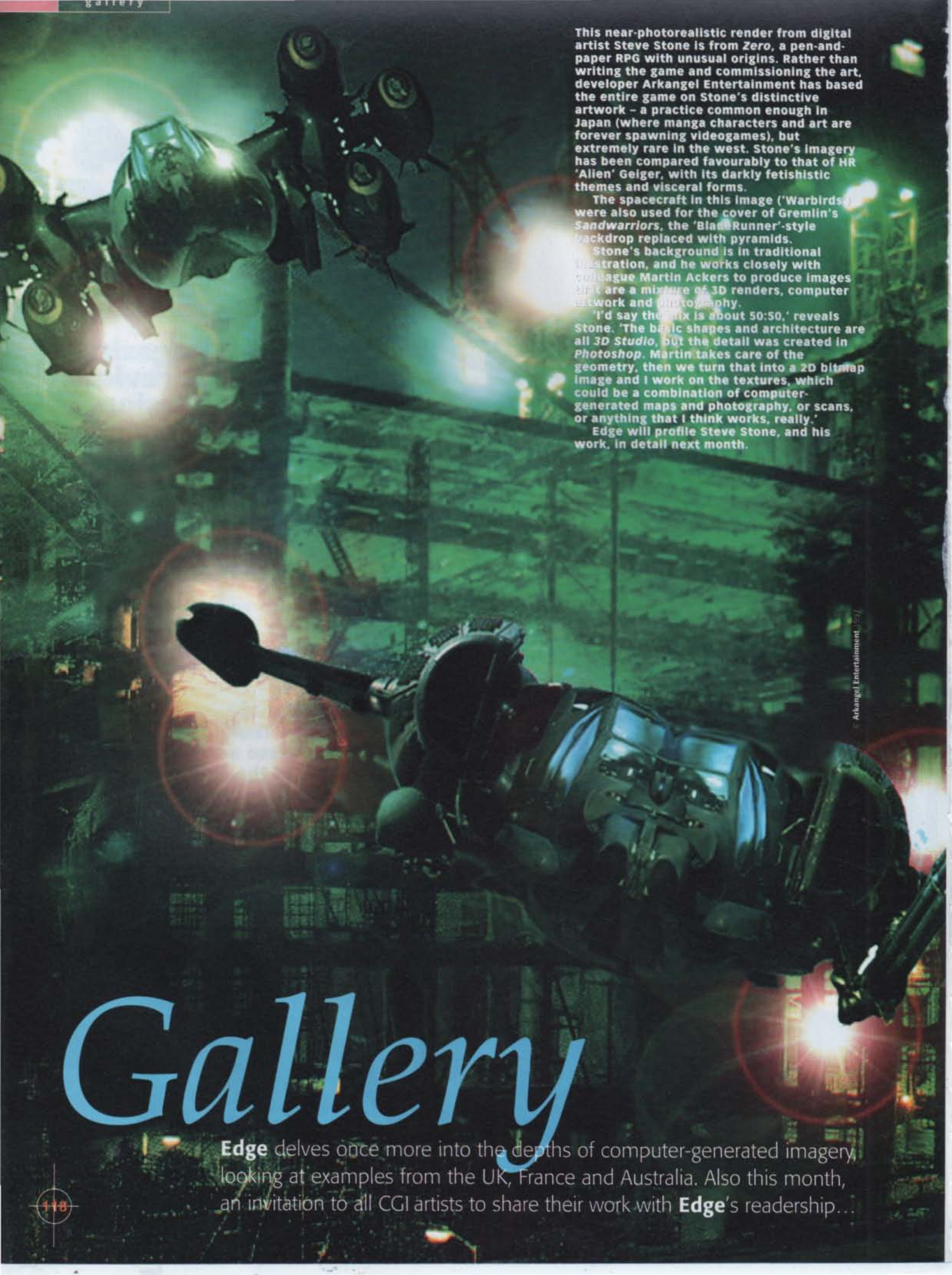
The Lost World: Jurassic Park is a *Virtua Cop*-style shoot 'em up – the first shoot 'em up, in fact, to use Sega's Model 3 board. As in *House of the Dead*, the game employs a multi-scenario system which alters the player's course if particular actions are performed. For now, only five stages have been announced (three on the island and two in a laboratory), but more are expected. The game also includes extra points for accurate shooting, a feature taken from *V-Cop* and one which points toward a more complex and less instinctive experience.

With 3D Surround Sound and a complex twoplayer mode, this package looks highly promising. Its incredible visuals are so detailed and smooth that the dinosaurs look almost as realistic as they appear in the film. Scary stuff.

Developer:	Sega (AM3)
Release:	July 7 (Japan)
Origin:	Japan



Sega's super-realistic visuals make this perhaps the lightgun game with the most impact to date. The subject matter certainly helps...



This near-photorealistic render from digital artist Steve Stone is from *Zero*, a pen-and-paper RPG with unusual origins. Rather than writing the game and commissioning the art, developer Arkangel Entertainment has based the entire game on Stone's distinctive artwork – a practice common enough in Japan (where manga characters and art are forever spawning videogames), but extremely rare in the west. Stone's imagery has been compared favourably to that of HR 'Alien' Geiger, with its darkly fetishistic themes and visceral forms.

The spacecraft in this image ('Warbirds') were also used for the cover of Gremlin's *Sandwarriors*, the 'BladeRunner'-style backdrop replaced with pyramids.

Stone's background is in traditional illustration, and he works closely with colleague Martin Ackers to produce images that are a mixture of 3D renders, computer artwork and photography.

'I'd say the mix is about 50:50,' reveals Stone. 'The basic shapes and architecture are all *3D Studio*, but the detail was created in *Photoshop*. Martin takes care of the geometry, then we turn that into a 2D bitmap image and I work on the textures, which could be a combination of computer-generated maps and photography, or scans, or anything that I think works, really.'

Edge will profile Steve Stone, and his work, in detail next month.

Gallery

Edge delves once more into the depths of computer-generated imagery, looking at examples from the UK, France and Australia. Also this month, an invitation to all CGI artists to share their work with **Edge**'s readership...



These beautifully innocent-looking images are taken from Adeline's forthcoming *Little Big Adventure 2*, the sequel to the acclaimed PC title from 1995. Their look was intended to reconcile the cut-sequences with the in-game action, as art director Didier Chanfray explains: 'All of the rendered work maintains the graphic look of the game, which is why we chose to keep the style as simple and cartoon-like as possible. I encourage the graphic artists to go further with it than with the in-game graphics because it allows us to reinforce certain visuals that wouldn't be possible to do in real time. *LBA2* is a very colourful game, and I think the rendered work reflects this.'

Images rendered using *3D Studio v3* by Adeline Software's Merlin Pardo, Benoit Boucher and Ludovic Rubin







The characters in *LBA2* resemble those usually seen in comic books such as Tin-Tin – hardly surprising considering Belgian comic book character Spirou is cited by Didier Chanfray, *LBA2*'s art director, as an influencing factor for the game's look.

Image (left) rendered by Frederic Tacquet on Silicon Graphics workstations using Softimage













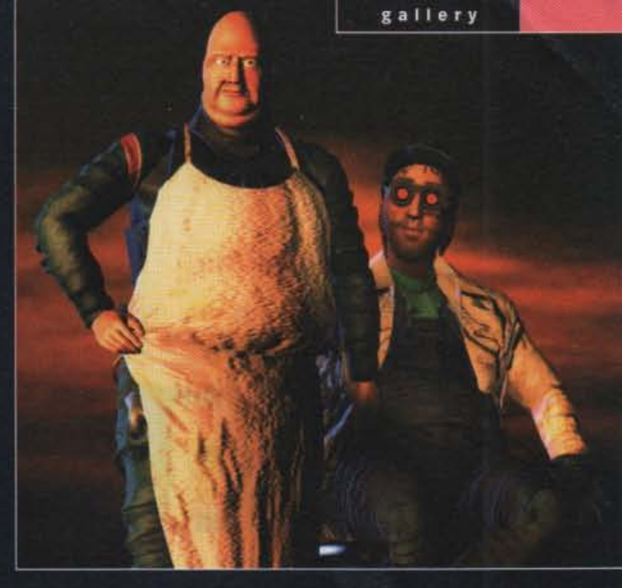




Destination Design is in the final stages of development of its enigmatic and visually stunning 3D title, *Queen: The Eye*. As the title suggests, the game will take its visual and musical cues from the band's albums and numerous videos. The results are some of the most detailed environments yet seen in a videogame. Artist Carl Wenczek believes that the uniquely broad vision of the band gives the game a distinctive look: 'With their videos, Queen created images and visions that ranged from parody, through opera, to science fiction. It was important, therefore, that the art of the game reflected this eclecticism; the backdrops are littered with objects from the past and from a dystopian future. That allowed us to break free of the traditional "shiny" computer graphics so common to computer games and create environments that were old and worn, as the past mingles with the future.

'From a personal point of view, having had architectural training and a love of travel, *Queen: The Eye* has provided me with the perfect platform to combine the arts and architectures of many different cultures. The Islamic library in the game is something I've always wanted to build, but that I never would have been able to do as a regular architect.'







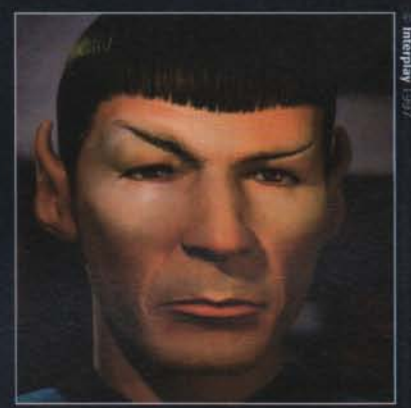


© Beam Software 1997

PC title *Alien Earth*, the pseudo-sequel to Melbourne House's seminal SNES action-RPG *Shadowrun*, sees the Australian developer creating some incredibly atmospheric character and spacecraft designs which endeavour to break out of the agonisingly clichéd cyberpunk mould. The texture work on the characters' clothing is especially effective.

Characters rendered by Adam Ryan using *3D Studio v4*; spacecraft scene by Chris Jones using *Lightwave v5.0*

Next Month



© Interplay 1997

This CGI Spock is taken from Interplay's 1998 release, *Secret of Vulcan Fury*. The entire crew of the Enterprise have been rendered to an equally detailed level, and animated to provide the most realistic characters yet seen in a videogame. **Edge** takes a closer look at both the artists and the technology in next month's Gallery.

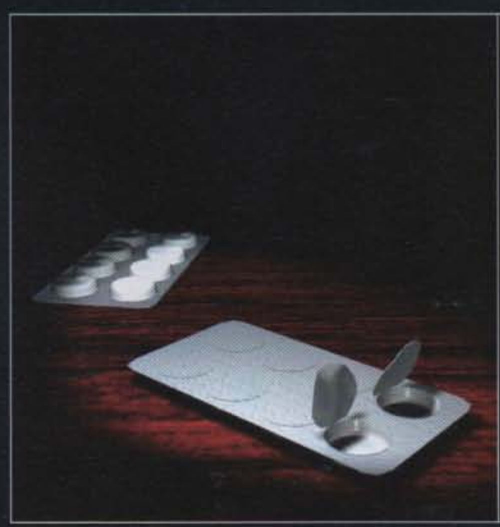
Come Inside

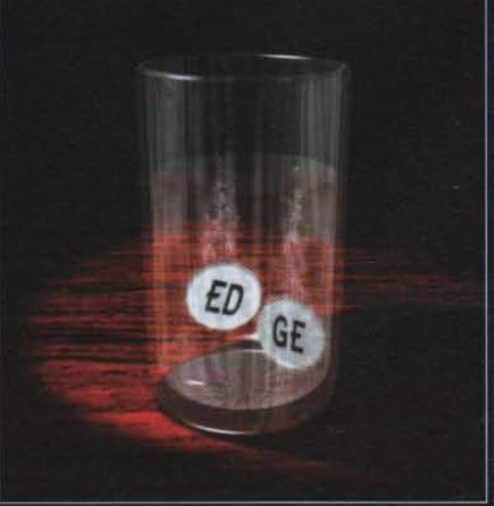
Edge's Gallery section is opening its doors to industry veterans and novices alike this month. All artists have to do in order to get their rendered art featured in this magazine is to come up with an innovative design worthy of **Edge**'s distinctive incovers. The more original the artwork, the more likely it is to appear here.

This image was sent in by Edge reader Chris Banks, of Grimsby, and shows an excellent grasp of ubiquitous PC rendering package, *3D Studio Max*.

Artists looking to show off their talents in these pages should send their submissions (on non-returnable Mac- or PC-compatible compact or floppy disk) to: Incovers, Edge, 30 Monmouth Street, Bath, BANES, BA1 2BW.

All artists who succeed in getting their work printed in Edge will receive a year's free subscription to the magazine.





Rendered on a PC using *3D Studio Max* by Chris Banks (chris.banks@diamond.co.uk)



RetroView

Bomb Jack

Tehkan is hardly a name that springs to mind when compiling a list of classics, but it produced at least one that qualifies...

As anyone who has been around the videogaming block a few times will already be well aware, once upon a time, score was *everything*. Whether it was *Space Invaders* or *Pac-Man* or *Asteroids*, the measure of a player's ability was the amount of points sitting at the top of the screen, not which point they had reached in the game (a stark contrast to the way modern-day classics such as *Tomb Raider*, for example, are treated).

Though Tehkan's *Bomb Jack* was more graphically potent that the aforementioned vintage coin-ops, it nevertheless *begged* those who played it to push themselves to snatching first place on its high-score table, such was the way its points structure worked.

The game consisted of only a handful of backdrops, over which were laid a variety of foreground platform structures. As the purposefully cheesy looking superhero Bomb Jack, the player was charged with the task of sweeping each screen free of bombs while avoiding the deadly intentions of swarms of metallic foes. It wasn't just a question of collecting the bombs haphazardly, though – the first bomb collected would set off a chain reaction, and the player could collect bonus points if he collected them in the order that they fizzled. Collecting 21 (of a possible 24) or above fizzlers resulted in a bonus award of 10,000 upwards.

The opponents' dogged nature, coupled with simple and responsive controls and bonus icons which allowed players to turn the tables on the enemy, made *Bomb Jack* one of most entertaining coin-ops to come out of the mid-'80s.

In style terms, it serves to prove that originality bred enjoyment in those days as much as it does today.








Manufacturer: Tehkan	1984	No 17
Developer: In-house	Arcade	

MAME

Computer owners continue to be blessed with perfect emulations of old coin-ops thanks to the skill of independent coders. This example offers over 100 games...

As the arcade emulation scene expands beyond all expectations, one man stands clear at the summit. Nicola Salmoria's *MAME* (Multi Arcade Machine Emulator) is the stuff of dreams for retro fans, a free emulator that runs more than 100 arcade games from their original code, dumped straight from the coin-op ROM boards.

Almost all the games run perfectly at their exact original speed on a super-humble 486/66, and the majority have sound, using samples in a couple of cases where the custom sound boards of some games can't be emulated properly.

All the coin-op dipswitches and operator settings are available at the touch of a key, and joysticks are supported with up to four buttons (which is invaluable in the case of games like *Crazy Climber* and *Vanguard* where multi-directional 'fire' is required).

With over 100 games emulated it's difficult to pick out particular points of interest (see list, right, for your own favourites), but one of the most exciting features of *MAME* is the resurrection of games lost to the gaming public at large, like the extremely rare *Donkey Kong 3* (previously only ever seen by Japanese NES owners).

Chances are, though, that if you ever entered an arcade between 1978 and 1986, there's something here to bring a smile to your face. And as most of the games are too aged and/or obscure to be ripe for official emulation packages, it's the only way for most of them to avoid being lost forever.

The PC-based emulator is written in C with source code freely available, so it's ported to other formats (Mac, Unix and even Amiga) within a day or two of a new PC version being released (a fairly regular occurrence).

Nicola has recently been forced to join the Italian army for ten months of National Service, but has left the emulator in the hands of a colleague, so development should continue.

As **Edge** went to press the latest version was 0.22, but you can keep up to date with the frequent revisions by checking out the following websites:

Dave's Video Game Classics:
http://www.gamepen.com/gamewire/classic/classic.html

Atmospherical Heights:
http://www.xs4all.nl/~delite/

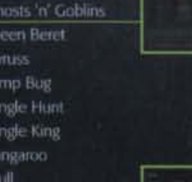


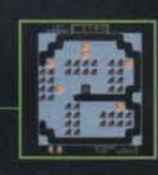
Format:	PC, Mac, Unix, Amiga
Publisher:	n/a
Developer:	Nicola Salmoria, Mirko Buffoni
Price:	n/a
Release:	Out now (Internet)

MAME games

Amidar
Arabian
Atlantis
Bagman
Bomb Jack
Burger Time
Carnival
Crazy Climber
Centipede
Commando
Congo Bongo
Crush Roller
Destination Earth
Diamond Run
Donkey Kong
Donkey Kong Jr
Donkey Kong 3
Elevator Action
Frogger
Galaga
Galaxian
Galaxy Wars
Ghosts 'n' Goblins
Green Beret
Gyruss
Jump Bug
Jungle Hunt
Jungle King
Kangaroo
Krull
Lady Bug
Lunar Rescue
Mad Planets
Mario Bros.
Millipede
Moon Cresta
Moon Quasar
Moon Patrol
Mouse Trap
Mr. Do!
Ms Pac-Man
Nibbler
Pac-Man
Pengo
Pepper II
Phoenix
Piranha
Pisces
Pleads
Pooyan
Popeye
Q*Bert
Rally-X
Rush'n Attack
Seicross
Super Cobra
Scramble
Space Attack
Space Invaders
Space Invaders Pt II
Space Panic
Super Pac-Man
The End
Time Pilot
Turtles
Uni Wars
Vanguard
Venture
Vulgus
War of the Bugs
Warp Warp
Wizard of Wor
Zaxxon

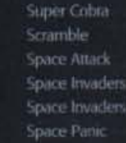











DEVELOP

VIDEOGAME CREATION UNDER THE MICROSCOPE

Direct X-plained

Microsoft's *DirectX* set of APIs was first announced at the Computer Games Developers Conference in 1995 and has since become a major element in the PC's growing status as a games machine. The main goal of the system was pretty straightforward: to promote games development for the *Windows* environment by making the process as simple as possible, without compromising the benefits of communicating directly with the hardware (via *MS-DOS*). Over the last two years, the initiative has been adopted by almost every major developer. As a consequence, Microsoft has now released a beta version of *DirectX 5.0* which revamps the APIs in a number of key areas.

Of greatest interest to developers, perhaps, will be the amendments made to Direct3D's 'Immediate' mode – a comparatively low-level programming interface which allows programmers to, say, throw planes and shapes at D3D rather than fully formed polygons, giving them more control over the hardware. Here Microsoft has implemented a new API called *DrawPrimitive*, which, according to **Mike Gamble**, Microsoft's European games evangelist, 'basically tidies D3D up. It makes the API much more user-friendly, and therefore makes it easier for developers to write efficient code.'

Microsoft's official line on the API is slightly more complex. '*DirectPrimitive* provides a powerful set of essential low-level functions for drawing 3D triangles, lines and points onto *DirectDraw*-based surfaces,' states the press release. 'It also provides an easy-to-use alternative to execution buffers and is scaleable to deliver maximum performance for both software-only and hardware-accelerated systems.' But what does all that really mean?

The execution buffer bypass is perhaps the most significant element. At the moment, developers creating 3D shapes have to send 'commands' to an execution buffer, which stores them all and then deals with them at some later point. In a 3D scene for a game, there are thousands of polygons that need to be drawn, so the programmer sends them individually to the execution buffer, which, once it has received all the instructions, goes to work and actually draws them. *DrawPrimitive*, on the other hand, allows polygon information to be sent directly to the hardware.

The question is, how useful is this simplification process to programmers? According to **Dominic Mallinson**, technical manager at Psygnosis, it varies. 'So far, it hasn't been used at Psygnosis. We have invested a lot of time in optimising and understanding the existing execute buffer scheme, with which we are happy. We will start to use *DrawPrimitive* on new projects to simplify the prototyping and early design phase. When we come to optimising the title, we will then look closely at the performance issues with drivers and hardware to see whether we can leave the *DrawPrimitive* scheme in place or whether we need to use execute buffers.

'It is also true that different types of games lend themselves to execute buffers and *DrawPrimitive* styles of programming. When 3D objects are all prebuilt, execute buffers are often the most efficient technique, but in games where lists of triangles are being manipulated in realtime, *DrawPrimitive* is more appropriate.'

Chris Orton, director of R&D at flight-sim softco Digital Image Design, is more positive in his appraisal of *DrawPrimitive*. 'Execute buffers required management by the game code. This led to extra code in the graphics engine, which was bound to reduce performance. By removing the need to manage execute buffers, *DrawPrimitive* removes work from the game code, making the interface cleaner and the game more efficient. The other advantage is that *DrawPrimitive* communicates almost directly with the graphics card, reducing the amount of work D3D is doing and therefore leading to better frame rates.'

There are, of course, many other changes elsewhere in *DirectX 5.0* that will affect developers. *DrawPrimitive*, for example, also allows developers to use their own 3D engines in conjunction with D3D, rather than having to rewrite them for compatibility – it simply slots in to communicate between the engine and *DirectX*. As Orton points out, 'A major advantage is that *DrawPrimitive* is a lot closer to the sort of techniques experienced graphics programmers – at least those at DID – are used to working with. This allows these programmers to make use of techniques they have built up over years working with both proprietary software and specific hardware APIs.'

Furthermore, as Mallinson clarifies, '*Direct X 5* has improved documentation and example code, which is useful to developers coming new to it. It also supports extra MMX optimisations and AGP. There have been general improvements to *DirectPlay* and *DirectSound* and we are also using the new support for Force Feedback joysticks which is available in *DX5*. We are optimistic that a tighter quality and certification procedure will be associated with *DX5* drivers for hardware, leading to a more stable system.'

It is clear, then, that Microsoft has consulted developers widely, and sought not only to add a list of attractive new features to its *DirectX SDK* but also to correct the bugs which have hampered previous incarnations. Also important is the fact that *DX5* will be a part of *Memphis* (aka *Windows* 98) – a first for a *Windows* platform. It is a sign that the top dogs at Microsoft, like developers themselves, are taking more and more notice of this influential product.





Both DID's *F22* (top) and Computer Artworks' *Evolva* have been developed using the new *DirectX 5.0* APIs

DIRECTX 5.0 COMPONENTS

Direct3D

As explained in E40 (p62), this set of software routines is designed to help developers get the best 3D performance from the PC. They include support for flat- and Gouraud-shading, texture mapping, depth cueing and bi/trilinear texture filtering. Direct3D games also work with 3D accelerator cards.

DirectDraw

'Provides access to the memory on the PC's video card, allowing the programmer to set up buffers for graphics to be displayed and also to use it as memory for the storage of texture maps,' explains R&D director Chris Orton. *DX5* includes AGP support and MMX acceleration for 2D.

DirectSound

Provides an interface enabling programmers to add sound to their games regardless of the soundcard the player has in his PC. *DX5* now lets programmers support the specific features of different cards.

DirectInput

Makes it easier for programmers to support all the input devices available to players, such as flight joysticks and steering wheels. *DirectX 5.0* adds support for force-feedback joysticks.

DirectMedia

***DirectMedia* is a whole new layer of APIs designed to work above the other aspects of *DirectX*. It is essentially aimed at designers of multimedia products and includes various features which help programmers integrate and stream video, audio, 3D animation and various other media sources. It also contains Microsoft's *Active Platform* – a product designed to aid in the construction of Web pages and other Internet content.**

DirectPlay

As discussed in E46 (p15), *DirectPLay*, which forms part of *DirectMedia*, makes it possible for game developers to create multiplayer and online gaming options without having to worry about all the different communication protocols involved (TCP/IP, IPX, etc). With *DirectX 5.0*, they simply write to *DirectPlay* and it does the rest.

Softimage plays the game

Montreal-based Softimage has one of the most impressive track records in the high-end animation software industry. Catapulted to its current position by ILM's use of *Softimage 3D* in 'Jurassic Park', and with such diverse projects as 'The Mask' and Brøderbund's forthcoming *Riven* to its credit, the company has also pioneered the use of inverse kinematics and helped develop motion capture. At least 1,000 companies are currently using its products for game development; it has produced development environments for all three major consoles; and a list of its clients includes such industry leaders as EA and Psygnosis. It's not resting on its laurels, though. It can't afford to.

While the market for high-end animation software has always been volatile, over the past couple of years it has changed dramatically. Not only have *Windows NT* machines eaten drastically into the former predominance of SGI, but the expectations of the consumer have risen exponentially, resulting in the need for constantly accelerating development. Big firms have also moved into the field, with Microsoft acquiring Softimage for $130 million in 1994 and SGI snapping up Alias and Wavefront shortly afterwards. Meanwhile, the escalating demands of the games sector have become increasingly influential in driving development.



© 1996 Cyan, Inc



***Digital Studio* (left) will give developers a fully integrated digital media production suite. Softimage software has been used in the creation of games such as *Riven* (above)**

'Close to about 50% of our revenue is coming from the games market and we've actually tailored version 3.7 of *Softimage 3D* to that market,' says president and founder **Daniel Langlois**. 'There's a lot of film and video features, but it's got mainly new games features that are dedicated to the purpose, like new tools for painting textures on polygons and freeform 3D paint where you can paint on the target platform. We've refined that a lot and added new polygonal tools to help people build models faster for games purposes.'

The capital injection from Microsoft has allowed the company to commit extensive resources to developing its next-generation products over the past couple of years, and 3.7, while it may boast significant enhancements over previous releases, is simply a bridgehead to the future. With this release, Softimage is starting to drip-feed into the market the components that will make up *Sumatra*, its next 3D software release, due in early 1998. Object-oriented, multi-threaded and fully compatible with current 3.x versions, it features what the company describes as 'a whole new level' of scaleable animation control, as well as improved modelling tools, the next generation of the program's impressive mental ray renderer as a completely integrated system, workgroup transparency and a new evolution of Softimage's signature workflow paradigms. An intuitive interface and the consequent productivity advantages has always been a core characteristic of the company's products and that focus on workflow continues with Sumatra.

'It's not about what they can do – we've already got a very highly developed set of tools,' says program manager **Gareth Morgan**. 'It's about how they're going to do it, how quickly they're going to do it and how easy it is. Right now, certainly in some areas, it's not as easy to connect motion capture to a character as it could be. It still works very well and it's still viable in terms of productivity, but what we're doing in *Sumatra* is speeding up that process 300-400%. It's more about the workflow. We know what the features need to be, but what we're spending a lot of time on is the interfaces.'

Sumatra is only a part of the company's strategy, though – a component of its forthcoming *Digital Studio*, an integrated digital media production suite which will feature all the major toolsets currently used in the industry (3D, paint, compositing, audio, titling, etc) in a single seamless environment.

Look out for more details on *Sumatra* in **E**48.

GAMUT-PSm



The success of *3D Studio MAX* as a development tool for the games industry has led to a host of plug-ins being developed for Autodesk's rendering software. Animetix Technologies in Canada has produced an interesting solution for PlayStation artists who wish their target hardware to be more closely integrated into the workstation environment.

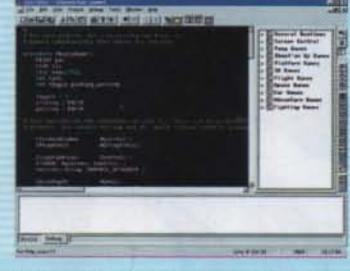
With *Gamut-PSm*, art created in *3D Studio MAX* can immediately be viewed on a PlayStation screen, saving time for artists and also enforcing the design constraints (such as palette and polygon limitations) of the target platforms. 3D geometry, textures and even precalculated lighting for models can be viewed so that artists can see how it will look in the final game. *Gamut-PSm* converts texture bitmaps to PlayStation image format files (TIM), transforming the triangles of *3DS MAX* into the planar quadrangles used by the PlayStation.

For more information, call Animetrix Technologies on 001 604 608 1941 or find the company on the WWW at: http://www.animetrix.com.

GODS squad prepare PC development assault

Although simple game development software was popular on 8 and 16bit computers (*Shoot 'em up Construction Kit, AMOS*, etc), the genre faded out of favour for a number of years. Now, however, Yaroze has bought programming back to the bedroom, and the creators of *GODS*, a powerful but apparently easy-to-use PC game programming application, want to keep it there.

GODS (Games Operating Development System) is essentially a set of tools, libraries, editors and programming languages heaped together in one user-freindly package. The idea is to allow users to create 2D and 3D games, whatever their level of experience. As the application's programmer, **Glynn Humpheys**, points out, '*GODS* is aimed at everyone from the complete novice to the industry expert who may just want to use a different language or simpler interface.' Humphreys reckons that it's possible to create a simple game with the product within one hour. **Edge** hopes to review the finished version, once the company finds a suitable publisher. ***Contact: GODS (01207) 271417***





The *GODS* development environment (left), and a sample game created using the package, which has the potential to kickstart a new wave of game programmers

(viewpoint)

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(e-mail: edge@futurenet.co.uk)

Hypocritical

John Braithwaite's hypocritical view towards home gaming (Viewpoint, **E**46) is a perfect example of how the 'mine's better than yours' debate will rage on long past drinking-up time. I have been a die-hard gamer for over 20 years and I've never felt the need to denigrate any system for trying something, even if it failed – after all, every step takes us closer to the future. I've also never felt it necessary to regard my opinions as any more relevant than that of others, and the aggravated egotism behind comments like 'I believe these are invalid criticisms' is childish and stupid.

Having either played on or owned every system from the Philips G7000 onwards, I'm pretty certain that it's not 'hot air' when I say, 'Grow up.' *Mario 64* is indeed a fine game that blends superb graphics with absorbing gameplay – these are the two main factors to take into account when judging its overall worth. It did indeed merit a perfect score, but unless you've had your eyes closed for the last ten years, it is only another *Mario* game. Not everyone in the world is a fan of the platform genre and their opinion of the game is just as valid as **Edge**'s wide-eyed adoration if it.

Given that the N64 is a technically superior system to the PlayStation and is backed up by the years of experience Nintendo has over Sony, it would be ludicrous if its games were not better. However, like every other system you can buy, there will be highs and lows. You failed to mention the absolutely average *Shadows of the Empire* or the stunningly bad *Cruis'n USA* or the trashy *FIFA 64* – there will always be mediocrity amongst the sublime. Try not to be so bitter about the views of of others and remember, gaming is supposed to be fun. The bar is now closed – everyone go home.

Patrick S Cowan, Edinburgh

The quality of the N64's software range was not at stake – it was the quality of *Mario 64* that was – so there was no need to mention titles such as *Shadows of the Empire*. Incidentally, **Edge** was one of very few magazines unswayed by the strength and allure of the *Star Wars* licence and *SOTE* was awarded a humbling six out of ten.

Too big

It's amazing to see each new **Edge** issue improving in quality and adding new sections. Special mention should go to 'Where are they now?' I hope to see it continued to find out what happened to legends like Matthew Smith (*Manic Miner*, to mention just one game), Dino Dini (*Kick Off*), Rob Hubbard (tons of C64 SID music), David Crane (*Pitfall*), Archer McLean (*IK*), Stavros Fasoulas (*Delta*) and so many others who've helped to make games what they are now. I hope to see more supplements ('Bullfrog', 'The State of Play', 'N64'...) in the future, but I would like supplements to be the same dimensions as **Edge**, so I can keep them together with the magazine, instead of the big and unstandardised size they are now.

By the way, in the Bullfrog supplement one game was forgotten in the discography: *Enlightenment: Druid II*. Before creating *Fusion*, Bullfrog did the Amiga conversion of this *Gauntlet* clone for Firebird. And to continue with the PAL vs NTSC debate, unfortunately for European users, almost all PAL games for PlayStation, Saturn and Nintendo 64 have black borders and are 17.5% slower than the NTSC versions. But when games are good enough, these are just minor inconveniences, because games are made to be fun not to run at 60fps or at fullscreen.

Manuel Martin-Vivaldi, Madrid, Spain

Good point. **Edge** only makes the distinction between PAL and NTSC software because occasionally games suffer in the transition from NTSC to PAL. Obviously the main concern is if the playability of a title is affected by a drop in speed. However, if the overall impact of a game is also reduced substantially when compared to in its NTSC format (as happened with the relatively sluggish PAL *Ridge Racer*) then **Edge** has a duty to inform its readers.

Skewed logic

Here follows an extract from a reply to an e-mail sent to VideoLogic voicing concerns about a) its lack of software support and b) the PowerVR upgrade recently announced.

'In an industry where things move so fast, it is essential that we keep technically ahead of the competition, and this must mean the introduction of improved technology. This holds true for every sector of the computer industry. The difference in the case of the Apocalypse upgrade is that VideoLogic has recognised the potential customer frustration and provided a means of moving on very cheaply. When was the last time Intel offered you a P200 at cost price because your P166 had been superseded? For the £59, not only do you get a faster card with more features, but you get two new games (worth more than the price of the upgrade in themselves), and you can keep the original card (for a spare PC or for a friend). All in all, I am happy to stand by our offer in the knowledge that it is good value and backs up our commitment to customer care. Once again, I sincerely apologise for the slow start to the publication of PowerVR-ready games, but assure you that there are no two companies (VideoLogic and NEC) working harder to fix an outstanding customer concern.

Colin Crawford, Customer Support Manager'

While I agree in principle to Mr Crawford's reply, he neglected to answer the fundamental question I had posed. That question was: Why, upon telephoning VideoLogic's Technical Help Desk and Sales department, was I not informed of the imminent upgrade, despite numerous questions which should have elicited that response. Could it be that VideoLogic would have had sales of their current card crippled if the news had been released? Instead, I



purchased the card only to read in the press of the upgrade days later.

I personally think that a company of their size should give consumers a little credit. In future I will wait that much longer before upgrading. The net result will be that companies will struggle even more for consumers to take on new hardware upgrades upon launch.

In hindsight, I believed the hype and have suffered. My next upgrade will be to a 3Dfx-based card, which is currently supported by many more developers – surprising considering that the manufacturers haven't got the financial muscle of NEC behind them.

Neil Dodsworth

Edge sympathises with anyone who has suffered at the hands of the breathtakingly fast-changing PC market, although one can also view VideoLogic's own predicament with a certain amount of understanding. The company is in the business of keeping ahead in the PC 3D market, and releasing early news of its upgraded chip (which itself is necessary to keep it in the market against 3Dfx) would have harmed the sales of its existing PCX1. Not an ideal situation from either perspective, admittedly. On the other hand, 3Dfx's Voodoo chipset seems to have monopolised developer commitment without resorting to an upgrade yet (and one isn't planned for at least another six months).

Spit and polish

I am wondering why more developers are not following Nintendo's trend of revamping and re-releasing proven hit titles. With the possible exceptions of *WaveRace* and *Shadows of the Empire*, all of the Big N's own current releases are classic SNES games with a 64bit makeover. What do *Mario Kart 64* and *Star Fox 64* offer in terms of gameplay over their previous incarnations? Not much, but will they sell in vast quantities? Of course they will.

(viewpoint)

Nintendo has proven the profitability of the 'spit and polish' job with *Super Mario All Stars*.

A souped-up *Sensi Soccer* on the PlayStation or a *Chuck Rock* on the Saturn, anyone? What with the games industry in general having a reputation for being a bunch of money-grabbing corporate bastards, it seems strange that more people are not at it. Perhaps they have got this reputation undeservedly. Not.

On another note, I realise one of the main purposes of your magazine is to report from the frontiers of interactive entertainment, but when it comes to PCs, how many of us have a 3Dfx-enabled P200 MMX? (Whatever the number, I'm sure it's increasing.) I'd bet a lot of your PC-owning readers have sub-P133 machines, so perhaps **Edge** could give an indication of a game's performance on a slightly more realistic-spec machine (a 16Mb P133, perhaps).

Ajmul Hussain,
Manor Park, London

So far Japanese companies have been chiefly responsible in reviving catalogues of older games for today's machines. Besides Nintendo's internal efforts, Hudson is working on *Baku Bomberman* and Konami is preparing *Castlevania 3D* and *Contra* for the N64. Western developers have been slower to port their existing concepts to newer technology (Factor 5's *Ballblazer Champions* is one example), perhaps because they feel they can contribute stronger original ideas. And surely Core's *Tomb Raider* is preferable to a 32bit *Chuck Rock*?

Edge's original concerns regarding both *V-Rally* and *F1* were based on the difference that existed (at the time) between console racers and its PC equivalents. This gap has since narrowed somewhat – especially with the release of *Ultimate Race*, the 3Dfx-compatible *F1* and *Moto Racer* – all games that sport an advanced simulation look but retain a console style of playability.

While the majority of PlayStation software is indeed shallow and arcade-like in nature, it's worth remembering that it is the only console with a growing (albeit tiny) range of more cerebral releases, such as *X-COM 1 & 2*, *Syndicate Wars* and *Command & Conquer*. Try getting hold of titles like those on the Nintendo 64.

Child's play

I was interested in your preview of *V-Rally* [E44], where you said that you hoped the game didn't become too realistic. Likewise, in your preview of *F1*, you doubted that a Formula 1 sim had any place on a super-console and should be kept on a £1,500 PC (and a 14" monitor, no doubt). And in your review of *F1* you said many would describe this as the least likeable racing sub-genre – to everyone except those who made *F1* a best-selling PS game and *GP2* the best-selling CD-ROM game of all time on its week of release.

The initial PlayStation adopters were quite old, mostly 25-40, and it is amusing how they have been given nothing but children's arcade software. After being priced out of the PC market, I was fully expecting that the PlayStation, like the Amiga before it, would offer both arcade-style and in-depth games. But I must strongly contest that Sony has targeted the 18-24-year-old market. The company does not know the intellectual differences between a ten-year-old child and a 20-year-old man. It claims that sims are difficult, but *Flight Unlimited* covered the basics in a slim manual.

The PlayStation is just a child's toy. Maybe other **Edge** readers should join this debate about the shallowness of console games.

John Mara,
Barking



Supplementary questions

I have a been a loyal subscriber to **Edge** since issue 1, and have just received the latest issue. I was surprised to see an advert for **Edge** 46 with a cover CD à la *Next Generation* – something else copied from your US friend.

You have said regarding covermounts: 'Covermounting items is prohibitively expensive – it's generally only used as a one-off marketing ploy to attract attention to new magazines or arrest declining sales. **Edge** falls into neither of these categories – and it's already a relatively costly magazine to produce.'

What has changed? Have your sales fallen? Are you trying to attract a younger audience? Where is the money coming from? Future will get about £1.80 for each magazine sold – by the time the paper costs, etc, have been taken out, there mustn't be much left. **Edge** was so desperate to cut costs that it lost the plastic bag. There are also more and more supplements coming with the magazine. I take it these are sponsored (like the Atari Jaguar episode). Is this a ploy to end the fall in sales? Why do you not release your ABC?

Is the cover price going to go up to cover the cost of the CD? If not, where is the money coming from to pay for it? What about all those readers who don't have PCs – is there a version without the CD? Is the sellotape going to ruin my covers? It's bad enough having all the supplements being folded.

As you said yourself, **Edge** isn't for everyone. That's why your readers pay a price premium. Please don't appeal to the lowest common denominator. We don't need supplements or cover CDs – which we will pay for, either through the cover price or increased adverts. Your niche readership buys the magazine for its high quality of journalism and layout, not for the freebies. Please bring the bag back – it could only have cost a penny.

Nicholas Stoker

Good grief. The decision to drop the bag wasn't a cost-cutting measure; it was purely a means of making the magazine more accessible to readers who may have been intimidated by the original 'closed' format. The bigger the audience **Edge** attracts, the more money can be spent on making the magazine better – surely good news for everyone. How can you complain about the fact that in the past five months **Edge** has been accompanied by three individual supplements – a detailed look at the Nintendo 64, a comprehensive look at videogame hardware of the future, and last month's in-depth look at Bullfrog and *Populous 3* [left] – all of which were intended to offer the reader more information?

The simple objective in these instances was to make the magazine more accessible to an audience that might appreciate it having never previously considered it, not to counter falling sales or attract younger readers. The selfsame ideology created this month's CD-ROM.

And no, there are no plans to raise the mag's price to cover its (not inconsiderable) cost. Editorially and commercially, **Edge** has never been in a stronger position, and this is simply being reflected in the fact that it is delivering more for its readers.

Nintendo no PAL of mine

I have two issues to raise. First, what is the ongoing situation with PAL releases of N64 games? I have a PAL machine and am quite satisfied with games such as *WaveRace*, which, even in its PAL incarnation, is still a great game. I have never played the NTSC version, and this probably explains why I am satisfied. However, it still irks me knowing that somewhere there is a superior version of these games. I am not that bothered by the black borders (if they can be reduced, all the better), but I am more concerned about speed issues. I want to buy *Mario Kart 64* when it comes out but I am worried that it will be significantly less playable because of the slow speed.

I can't use an import Nintendo 64 because I only have an old-fashioned telly, and having been 'stung' for £100 by the N64's recent price job, there is no prospect of me getting a new one. I would like you to do an in-depth feature on exactly what are the differences between the different systems and versions (should be easy), and more importantly, is it technical problems

(QandA)

WRITE TO Q&A, **EDGE**, 30 MONMOUTH STREET, BATH, BA1 2BW

or simply laziness/lack of care that allows many UK titles to be non-optimised. In other words, why is it that only the likes of Konami with *ISS 64* that can be bothered to make the PAL games as good as they can be?

Finally on this issue, I think because this situation affects the majority of UK N64 owners, it is crucial that magazines such as yours, which usually reviews the import version of any particular game as the main review, do a 'recap' when the PAL version finally hits the streets, pointing out exactly how good (or bad) a job has been made of 'converting' it for PAL. By the way, didn't Nintendo optimise SNES *Super Mario Kart* for PAL?

The second point is regarding the 64DD. We know that when the cart version of *Zelda 64* is released it will be compatible with the 64DD, so that when the drive finally comes out you will be able to extend the life of the original cart game. However, do you think Nintendo has realised that extending this strategy could make the 64DD a 'must have' peripheral? Imagine being told when the 64DD is launched that



your *Super Mario 64*, *WaveRace*, and *BlastCorps* carts have already been made compatible with the 64DD, and all you need to do is purchase a (hopefully inexpensive) disk to play six new courses in *WaveRace* or explore a whole new world in *Mario*? Almost every N64 owner has these games and loves them but probably completed them a while back. The option of 'doing it all again' with new levels would be very tempting, though. Imagine: *Super Mario 64 3* could be exclusively available as a download from a website.

Dr Alan Choo-Kang, Chester

The question of reprogramming/optimising PAL N64 games is down to the individual publisher responsible. Konami has certainly set a glowing precedent that will hopefully be regarded by other publishers – including Nintendo.

The 64DD strategy is presently far from clear. Several new games may suit the medium – possibly the likes of *Turok 2*, *Unreal* and *Quake 2*, for example – but it's unlikely that any cartridge released in the next six to 12 months will offer 64DD support.

Q After spending the last month downloading and avidly playing all of the fantastic '80s arcade emulators available on the Web for the PC, I have only one gaming wish left in the world. While games such as *Asteroids* are perfectly playable with the PC keys and are an absolute joy to play, most classics need an authentic arcade joystick with two buttons to truly recreate their frantic action and playability. Please could you tell me if it is possible to buy an actual arcade setup (joysticks and accompanying buttons – not a full cabinet, just input controls) and connect them to the PC in some way? If not, what is the best arcade-style digital stick that is available (preferably as good the old Mega CD arcade stick)?

Stuart Thomson, Chester, England

A It's possible to connect complete arcade cabinets up to your PC or simply connect a joystick of your choice (although traditional PC models perhaps aren't the best for fast-action arcade games). For most older arcade emulation games, you probably need a decent joypad – you can connect SNES pads to the PC. For more information, e-mail one of the dedicated emulation sites.

Q **1.** Is it possible to connect my UK PlayStation to a PC monitor without having to buy a PC-TV card?
2. When is *Tekken 3* being released?
3. And is there going to be a hardware upgrade for it?
4. I have a P120 PC with 24Mb of RAM. Would you recommend upgrading to a higher processor?
5. Can a US/Jap N64 play UK games with a Universal Adaptor like the SNES could?

Samir Marafie, via e-mail



A **1.** Unfortunately not. The PC's video display is handled by a card and unless you can devise a way of taking your PlayStation signal through this, you'll need a custom card. But what's the point?
2. & **3.** *Tekken 3* will probably be available before the end of the year, but Namco is keeping quiet. An upgrade which could take advantage of the advanced features of the game is rumoured, but very unlikely.
4. It depends what kind of games you want to play. Even a P120 will struggle to run most high-end 3D titles these days, although its disadvantages can be minimised with a 3Dfx card – this is currently the least hardware-dependent card on the market, as well as the most potent in terms of rendering power, and will give the machine a huge boost in polygon-generating horsepower.
5. There are now adaptors that allow the use of foreign games on any N64 system, although at the time of writing they are still not 100% reliable.

Q I noticed that you gave a thumbs up to the PAL version of *ISS 64*. I am just about to buy an American N64, mainly because, as was repeatedly pointed out in **E**46, the PAL conversions are distinctly second-rate. However, I would like to play *ISS 64* instead of its Japanese counterpart, *J-League Perfect Striker*. So, would *ISS 64* running via a universal adaptor on an NTSC machine run exactly the same as it would on a PAL machine? Would it not, for example, run faster than intended?

Robert Day

A Running the game through an adaptor would probably make the game run fairly closely to its NTSC counterpart and not noticeably faster (although the PAL version of the game was not available for **Edge** to check). A US version of the game should be available around the time you read this. Naturally, that would be the most sensible option.

Q **1.** When will the PlayStation's analogue pad be released in the UK?
2. Is there a decent flight sim-style joystick available yet for the PlayStation with loads of custom features?

Joseph Brown, Leicester

A **1.** It's scheduled for release sometime in the autumn.
2. The latest stick to hit the shelves is SpectraVideo's PS dominator (left), which costs £30. It has all the usual gimmicky features you'd expect, such as an LED display, slow motion and semi auto-fire, but best of all, as well as digital and analogue modes, it has a 'Namco' option for games configured for use with Namco's own stick.



Next month Edge revisits dinosaur territory with 'The Lost World: Jurassic Park 2'. Edge will be visiting Steven Spielberg's DreamWorks in Los Angeles and speaking to the creators of the console and PC interpretations of the smash hit movie, and also speaking to Sega, whose AM3 department is preparing to unleash dinosaurs upon arcades the world over. AM3 is also engineering another new racing coin-op, the Model 3-powered *Le Mans* – naturally, Edge will be presenting a full exposé of this development, too.

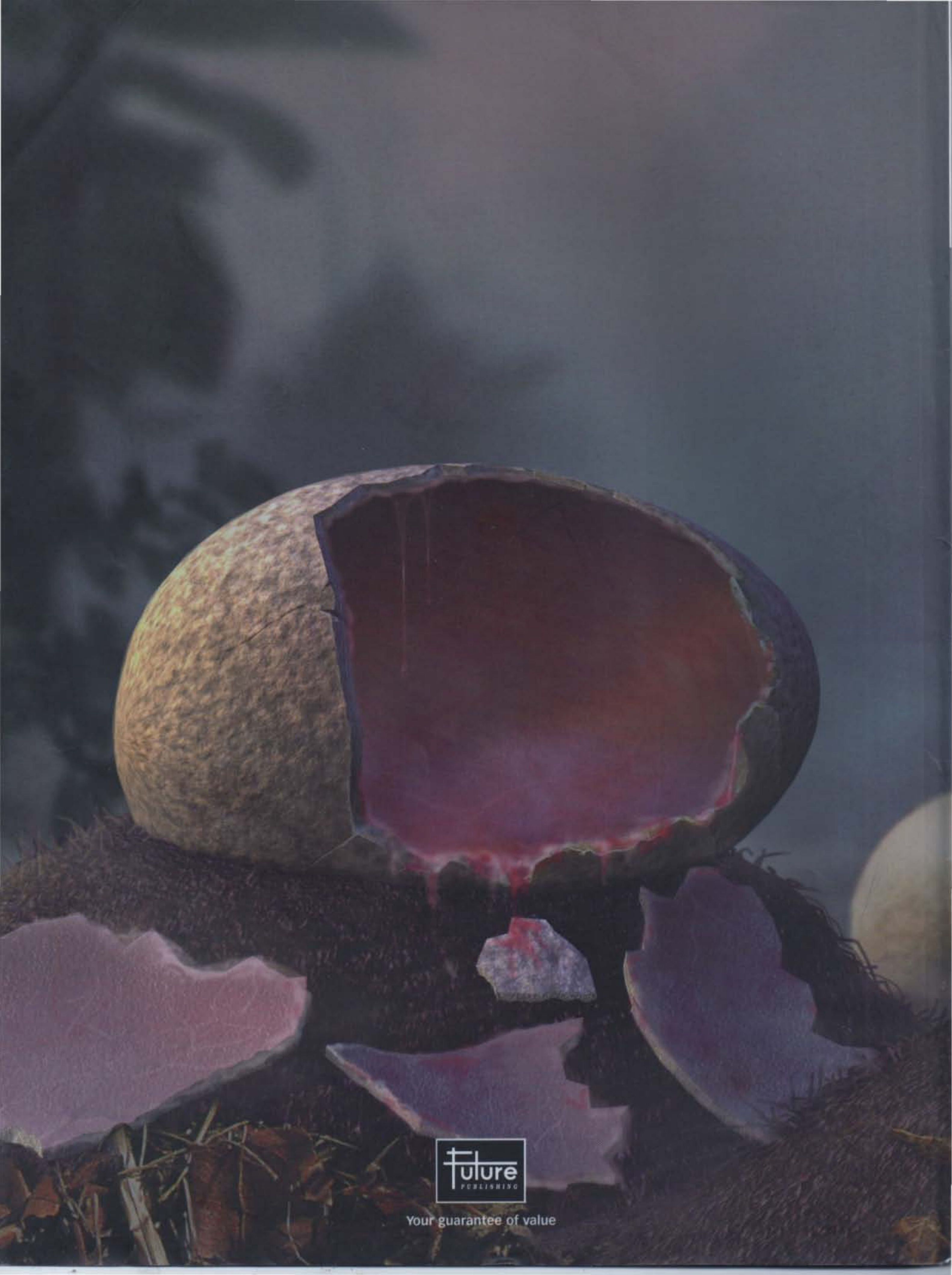
Furthermore, Edge 48 will feature the most in-depth and authoritative coverage of E3, the world's biggest videogame show to date, reporting on the latest Nintendo 64, PC, PlayStation and Saturn games from the world's leading software developers.

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